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                IN THE UNITED STATES DISTRICT COURT
                 FOR THE EASTERN DISTRICT OF TEXAS
 2
                         MARSHALL DIVISION
 3
   SOLAS OLED LTD.,
                                  ) (
                                       CIVIL ACTION NO.
                                       2:19-CV-152-JRG
                                  ) (
 4
        PLAINTIFF,
                                  ) (
                                  ) (
 5
        VS.
                                  ) (
                                  ) (
 6
   SAMSUNG DISPLAY CO., LTD.,
                                 ) (
                                 ) ( MARSHALL, TEXAS
   SAMSUNG ELECTRONICS CO.,
7
   LTD., SAMSUNG ELECTRONICS )( MARCH 3, 2021
   AMERICA, INC.,
                                 ) ( 8:37 A.M. - 6:30 P.M.
 8
                                  ) (
         DEFENDANTS.
                                  ) (
 9
10
                      TRANSCRIPT OF JURY TRIAL
11
            BEFORE THE HONORABLE JUDGE RODNEY GILSTRAP
12
                 UNITED STATES CHIEF DISTRICT JUDGE
13
14
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15
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16
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16
17
   COURT REPORTER:
18
                       Ms. Shelly Holmes, CSR, TCRR
                       Official Court Reporter
19
                       United States District Court
                       Eastern District of Texas
20
                       Marshall Division
                       100 E. Houston
21
                       Marshall, Texas 75670
                       (903) 923-7464
22
23
    (Proceedings recorded by mechanical stenography, transcript
24
   produced on a CAT system.)
25
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PROCEEDINGS
07:56:05
         1
                    (Jury out.)
07:56:05
         2
                    COURT SECURITY OFFICER: All rise.
07:56:08
         3
07:56:09
                    THE COURT: Be seated, please.
         4
                    Are the parties prepared to read into the record
08:37:09
         5
08:37:16
            those items from the list of pre-admitted exhibits used
         6
            during yesterday's portion of the trial?
08:37:19
        7
08:37:22
                    MS. HENRY: Yes, Your Honor.
         8
                    THE COURT: Please make your offer in regard to
08:37:22
         9
08:37:26
       10
            Plaintiff, please, Ms. Henry.
                    MS. HENRY: Your Honor, Plaintiff offers -- and
08:37:27
        11
08:37:30
       12
            I'll begin with the PTX numbers to try to make it a little
08:37:33
       13
            bit easier for the court reporter. PTX-1, PTX-2, PTX-3,
            PTX-15, PTX-16, PTX-26, PTX-30, PTX-95, PTX -- PTX-100 EN,
08:37:40
       14
08:37:54
            PTX-103, PTX-116, PTX-117, PTX-118, PTX-119, PTX-120,
       15
            PTX-122, PTX-123, PTX-124, PTX-126, PTX-129, PTX-131,
08:38:07
       16
            PTX-132, PTX-134, PTX-135, PTX-140, PTX-142, PTX-143,
08:38:20
       17
            PTX-144, PTX-159, PTX-160, PTX-163, PTX-168, PTX-270,
08:38:35
       18
            PTX-508, PTX-524, PTX-650, PTX-686, PTX-690, PTX-691,
08:38:48
       19
08:39:02
       20
            PTX-692, PTX-694, PTX-701, PTX-702, PTX-703, PTX-714.
                    The remainder that I will read are DTX numbers.
08:39:16
       21
       22
            DTX-634, DTX-664, DTX-681, DTX-733, DTX-741, DTX-750,
08:39:20
08:39:36
       23
            DTX-780, DTX-792, DTX-892, DTX-893, DTX-895, DTX-896,
            DTX-902, DTX-903, DTX-912, DTX-960, DTX-973, DTX-981,
08:39:51 24
            DTX-982, DTX-983, DTX-989, DTX-993, DTX-995, DTX-997,
08:40:07 25
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DTX-998, DTX-999, DTX-1045, DTX-1046, DTX-1047, DTX-1048,
08:40:22
        1
           DTX-1049, DTX-1050, and DTX-1208.
08:40:37
         2
                    THE COURT: Any objection from Defendants to that
08:40:45
        3
           rendition by Plaintiff?
08:40:48
        4
                    MR. DANIEL CHO: No, Your Honor.
08:40:50
        5
                    THE COURT: Do Defendants have a similar rendition
08:40:51
        6
08:40:54 7 to offer?
                    MR. DANIEL CHO: Good morning, Your Honor.
08:40:55
        8
08:40:56
                    The Defendants offer DTX-633 into evidence.
        9
                    THE COURT: Any objection from Plaintiff?
08:41:00 10
                    MS. HENRY: No, Your Honor.
08:41:02 11
                    THE COURT: Does that complete the offer from both
08:41:03 12
08:41:06 13 sides?
08:41:06 14
                   MS. HENRY: It does.
08:41:08 15
                   MR. DANIEL CHO: Yes, sir.
                    THE COURT: All right. Then those exhibits are
08:41:09 16
           deemed admitted exhibits and are no longer deemed
08:41:11 17
           pre-admitted, per the Court's practice.
08:41:18 18
                    All right. Plaintiff, I understand it's your
08:41:20 19
08:41:22 20
            intention to call your damages expert next; is that
08:41:25 21
           correct?
08:41:25 22
                    MS. HENRY: That's correct, Your Honor.
08:41:26 23
                    THE COURT: Are you prepared to go forward?
08:41:27 24
                   MS. HENRY: We are, Your Honor.
08:41:28 25
                    THE COURT: All right. Is there anything the
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Court needs to hear from either party -- either side before
08:41:30
         1
08:41:33
            I bring in the jury?
         2
                    MS. HENRY: Not to my knowledge, Your Honor.
08:41:35
         3
                    MR. HASLAM: No, Your Honor.
08:41:38
         4
                    THE COURT: Okay. We have, I understand, a
08:41:39
         5
08:41:43
            witness early in Defendants' case-in-chief that will need
            an interpreter. It's my intention to have the interpreter
        7
08:41:47
08:41:50
            sworn during a recess outside the presence of the jury, but
         8
            we'll get that done on the record.
08:41:53
                    And any other accommodations we can finish with
08:41:55
       10
            regard to the interpretation of that witness's testimony
08:41:58
       11
            either during a recess or at another break.
08:42:05
       12
08:42:07
       13
                    All right. Let's bring in the jury, please.
                    COURT SECURITY OFFICER: All rise.
08:42:58
       14
08:43:00
       15
                    (Jury in.)
                    THE COURT: Good morning, ladies and gentlemen.
08:43:01
       16
           Welcome back. Please have a seat.
08:43:11
       17
                    When we finished for the day yesterday, Mr. Thomas
08:43:13
       18
08:43:22
       19
            Credelle, the Plaintiff's technical expert, had finished
08:43:25 20
            testifying.
       21
08:43:25
                    We'll now proceed with the next witness by the
08:43:30
       22
           Plaintiffs as a part of their case-in-chief.
08:43:32 23
                    Plaintiff, call your next witness.
08:43:34 24
                    MS. HENRY: Plaintiff calls Mr. Stephen Dell.
08:43:42 25
                    THE COURT: All right. If you'll come forward and
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be sworn, please, Mr. Dell.
08:43:44
        1
08:43:51
                    (Witness sworn.)
         2
08:43:52
                    THE COURT: Please come around, sir, have a seat
        3
           on the witness stand.
08:44:04
        4
                    All right. Ms. Henry, you may proceed with the
08:44:05
        5
08:44:23
           direct examination of the witness when you're ready.
        7
                   MS. HENRY: Thank you, Your Honor.
08:44:25
08:44:25
                    STEPHEN DELL, PLAINTIFF'S WITNESS, SWORN
        8
08:44:25
                                 DIRECT EXAMINATION
           BY MS. HENRY:
08:44:25
       10
           Q. Good morning, my name is Claire Henry, and I am law
08:44:26
       11
           partners with Mr. Ward and Ms. Fair.
08:44:29 12
08:44:33 13
                    Mr. Dell, please introduce yourself.
08:44:34 14 A. Hi, my name is Stephen Dell.
           Q. Can you tell us a little bit about yourself. Where do
08:44:36 15
08:44:39 16 you live?
           A. I live in Houston, Texas, actually a suburb just north
08:44:39 17
          of Houston called Willis.
08:44:42
       18
           Q. And do you have a family?
08:44:42 19
08:44:43 20
           A. I do. Married, going on 20 years. I have two
08:44:48 21
           children, two boys, ages 13 and 14.
08:44:52 22
           Q. And what do you do for a living?
08:44:55 23
           A. So I'm the president and founder of a company called
08:45:00 24
          NOVUM Consulting Group. We provide financial consulting
          and valuation advisory services to corporate clients, both
08:45:03 25
```

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privately held and publicly held companies, with respect to
08:45:06
         1
08:45:10
            their intellectual property assets and other business
08:45:12
         3
           matters.
            Q. Why are you here to testify today?
08:45:13
            A. So I've been retained to provide my opinion with
08:45:16
         5
08:45:19
            respect to the reasonable royalty damages owed to Solas as
            a result of Samsung's infringement.
08:45:23
            Q. Did you prepare a set of slides to help walk us through
08:45:24
         8
08:45:27
            your analysis today?
           A. Yes, I did.
08:45:28
        10
                    MS. HENRY: Mr. Wietholter, could we get -- please
08:45:29
       11
           get Mr. Dell's slides?
08:45:32
        12
08:45:34
        13
            Q. (By Ms. Henry) Mr. Dell, can you briefly explain your
            educational background. Where did you go to college?
08:45:37
       14
           A. I went to the University of Texas at Austin. Graduated
08:45:39
       15
            with a degree in economics with an emphasis in finance.
08:45:43
            Q. And do you have any certifications that are relevant to
08:45:46
       17
           your testimony today?
08:45:49
       18
           A. I do. I am a certified valuation analyst.
08:45:50
       19
       20
08:45:53
            Q. What's a certified valuation analyst?
       21
           A. Similar to a Certified Public Accountant. In the
08:45:56
08:46:00
        22
            accounting world where they're provided a certification
08:46:02
        23
           that attests to your preparing of taxes for the IRS, a
08:46:07
       24
            certified valuation analyst provides me the ability to
           provide a certified opinion of value, both in litigation
08:46:11 25
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context, such as this, but also business valuations in
08:46:14
         1
08:46:16
           other matters.
         2
         3
           Q. And how long have you been working in the area of
08:46:17
           patent valuation and damages?
08:46:21
           A. It will be 20 years this year.
08:46:23
        5
08:46:25
            Q. Have you received any recognition for that work?
            A. I have. I've been recognized by Intellectual Asset
08:46:28
        7
           Management for my work in this field and been recognized as
08:46:35
08:46:38
           one of the leading economic and patent damages experts in
           the world.
08:46:41
        10
            Q. Is all of the work you do for litigation like this
08:46:41
        11
08:46:44 12 case?
08:46:45
       13
           A. No, it's not.
           Q. Tell us a little bit about your real-world experience.
08:46:46
       14
08:46:49
           A. So, as I mentioned, my firm also does advisory work.
       15
           So we are retained to provide opinions of value, as well as
08:46:53
       16
           assist in the licensing of intellectual property assets
08:46:57
       17
           both in licensing as well as receiving or outbound
08:47:02
       18
08:47:05 19
           licensing.
08:47:06 20
            Q. So have you ever negotiated licenses out in the real
08:47:08 21
           world?
           A. I have, yes.
08:47:08 22
08:47:09 23
           Q. Mr. Dell, are you being compensated for the time that
08:47:14 24
           you spent forming your opinions?
```

A. Yes, I am.

08:47:15 25

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And what's your hourly rate?
08:47:16
         1
            Q.
08:47:18
               $475 per hour.
            Α.
08:47:20
            Q. And is that rate or your payment at all dependent on
         3
            the outcome of this case?
08:47:24
            A. Absolutely not.
08:47:25
         5
08:47:27
                    MS. HENRY: Your Honor, I tender Mr. Dell as an
         6
        7
            expert in the area of patent damages and valuation.
08:47:29
08:47:31
         8
                    THE COURT: Is there objection?
08:47:33
                    MR. HASLAM: No objection.
         9
                    THE COURT: Without objection, this witness will
08:47:34
        10
            be recognized by the Court as an expert in those designated
08:47:37
        11
       12
            fields.
08:47:40
                    Please continue.
08:47:40
       13
            Q. (By Ms. Henry) Mr. Dell, before we get started, can
08:47:44
       14
08:47:46
       15
            you please give us an overview of the types of information
            that you considered in forming your damages opinion?
08:47:48
        16
            A. Yes. We reviewed a variety of information, starting
08:47:52
        17
            with the patents that we've been discussing over the last
08:47:56
       18
            several days. I've also had discussions with Solas
08:47:58
       19
08:48:02
       20
            representatives, including Mr. Padian, as well as
       21
            Mr. Shaikh, who we've heard from, as well as Mr. Credelle,
08:48:06
08:48:09
       22
            with respect to an understanding of the technology.
                     I've also reviewed thousands and thousands of
08:48:12
       23
08:48:15 24
            pages of documents, both from Solas, as well as from
08:48:19 25
            Samsung, that have been produced in this matter.
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I've reviewed license agreements as part of those 08:48:22 1 08:48:25 documents. 2 I've also reviewed the deposition testimony of 08:48:26 3 some of the witness that you've heard from, as well as 08:48:30 others, and reviewed the experts' reports from both sides, 08:48:32 5 08:48:38 in addition to the legal filings that have also been made in the case. 08:48:40 7 Q. You mentioned you reviewed thousands of pages of 08:48:41 08:48:43 documents. Do you have any estimate of how many documents you reviewed or how many pages of documents? 08:48:46 10 08:48:48 A. Best -- it will be well over 10,000 pages. 11 Q. And how many hours would you say that you and your team 08:48:52 12 spent forming your damages opinion in this case? 08:48:55 13 A. I know me personally, I've spent between 250 and 300 08:48:57 14 08:49:04 15 hours, personally. Q. So after reviewing all those documents and after 08:49:05 16 spending all of those hours, were you ultimately able to 08:49:07 17 come to an opinion on what you believe the damages are that 08:49:10 18 08:49:15 19 Samsung owes Solas for its infringement of the patents in 08:49:18 20 this case? 08:49:19 21 A. Yes, ma'am, I was. 08:49:20 22 Q. And what is that opinion? 08:49:22 23 A. So as shown on the slide, my opinion is that damages 08:49:27 24 for the '311 patent are 35.4 million. Damages for the '450 patent are 25.8 million. And damages for the '338 patent 08:49:33 25

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are 27.3 million for a total reasonable royalty damages of
08:49:37
         1
           88.6 million, roughly.
08:49:42
           Q. That's a whole lot of money.
08:49:45
         3
           A. Yes, it is.
08:49:46
            Q. Why is that number so high?
08:49:47
         5
           A. Because Samsung has made extensive use of the
08:49:48
           patents-at-issue, and sold a lot of products that make use
08:49:54
        7
           of those inventions.
08:49:57
        8
            Q. Mr. Dell, do you understand -- do you have an
08:49:58
            understanding of whether or not Samsung continues to
08:49:59
        10
            infringe at least the '311 patent?
08:50:03
       11
08:50:04
       12
           A. Yes, that's my understanding.
08:50:05
       13
            Q. And do these damages numbers we see on the screen take
08:50:08
       14
           into account any future use or infringement by Samsung of
08:50:13 15
           these patents?
           A. No, they do not.
08:50:13 16
           Q. So if Samsung continues to infringe beyond the date of
08:50:14
       17
           this trial, is it your opinion that they should also pay
08:50:18
       18
08:50:21
       19
           for that use of the patents?
08:50:22 20
           A. Yes, that's correct.
08:50:23 21
           Q. Mr. Dell, how did you start your damages analysis in
08:50:29
       22
           this case?
08:50:29 23
           A. Well, we start with the law and what the law guides in
08:50:34 24
           determining a calculation of damages.
```

As shown on the screen, this is the patent damages

08:50:35 25

08:50:39	1	statute, which indicates that damages shall be adequate to
08:50:42	2	compensate for the infringement, but in no event less than
08:50:46	3	a reasonable royalty for the use made of the invention by
08:50:50	4	the infringer.
08:50:51	5	Q. I see that you've underlined in red that language, for
08:50:56	6	the use made of the invention by the infringer. Why did
08:51:00	7	you do that?
08:51:01	8	A. Because understanding the value is also understanding
08:51:03	9	the use and the benefits attributed to that use. So the
08:51:06	10	extent of use is a very important aspect of tackling patent
08:51:10	11	damages.
08:51:10	12	Q. And the patent damages statute always mentions a
08:51:16	13	reasonable royalty. What is a royalty?
08:51:17	14	A. As we've heard over the past couple days, patents are
08:51:21	15	property. That's an analogy I often when I explain to
08:51:24	16	my friends what I do for a living, it's similar to you
08:51:27	17	would rent an apartment or you would rent a house. You
08:51:30	18	have a rental agreement or a lease agreement, and you pay
08:51:33	19	for rights to use that property, such as rent.
08:51:37	20	And with patents, it's very similar, in that
08:51:40	21	patents are property. You pay for rights to use that
08:51:42	22	property, and companies enter into what are called a
08:51:47	23	license agreement. And in doing so, they pay royalties or
08:51:49	24	rent for rights to use that property.
08:51:51	25	Q. And is there a formula that damages experts use in

- 1 order to determine reasonable royalties? 08:51:55 A. Yes, there is. 08:51:58 Q. Is that the formula that we see on Slide 7? 08:51:59 3 A. Yes, it is. It's the calculation of the royalty base 08:52:02 or the extent of use times a royalty rate, which 08:52:05 08:52:09 multiplying those two together gives you the royalty damages. 08:52:12 7 Q. Can you please explain for us at a high level what is a 08:52:12 royalty base? 08:52:16 10 A. Well, as I indicated a moment ago, the royalty base is 08:52:17 the extent of use or the sales of the products that make 08:52:21 11 08:52:25 12 use of the invention of the patents. 08:52:26 13 Q. And, again, at a high level, what is a royalty rate? Ι think you talked about this a little bit. 08:52:29 14 08:52:31 A. So the royalty rate, as I indicated, is the payment for 15 rights to use that property. 08:52:35 08:52:36 17 Q. Let's start with the royalty base. What does the law tell you you have to consider 08:52:39 18 08:52:46 19 when determining the appropriate royalty base in a case 08:52:48 20 like this? 08:52:49 21 A. We heard a little bit about this yesterday from Mr. Credelle, but the first step is identification of 08:52:52 22
- 08:53:01 25 A. Generally, it is the identification of the smallest

Q. Still a mouthful today. What does it mean?

what's called the smallest salable patent practicing unit.

08:52:54

08:52:58 24

23

08:53:06 product or component that is sold or salable that makes use 1 of the claims of the invention. 08:53:10 Q. How do you go about determining what the smallest 08:53:12 3 salable patent practicing unit was for this case? 08:53:19 A. Well, given there are some technical aspects to it, I 08:53:20 5 08:53:24 had discussions with Mr. Credelle. Q. And after your discussions with Mr. Credelle, did he 08:53:25 7 tell you what he believes, from a technical standpoint, is 08:53:32 the smallest salable patent practicing unit? 08:53:36 A. Yes, he did. 08:53:37 10 O. And what is that? 08:53:38 11 08:53:38 12 A. It is the OLED display module. 08:53:42 13 Q. And we see a graphic here. What is this -- what is 08:53:45 14 this graphic depicting? 08:53:47 15 A. It's showing the OLED display module itself, separate and apart from the overall phone or accused product. 08:53:50 Q. Did Mr. Credelle determine that the OLED display module 08:53:54 17 was the smallest salable patent practicing unit for all 08:53:58 18 three of the patents? 08:54:02 19 08:54:03 20 A. Yes, he did. 08:54:04 21 Q. Are you aware that Samsung says that you should have 08:54:09 22 used something else --08:54:12 23 A. Yes. 08:54:12 24 Q. -- as the smallest salable patent practicing unit?

08:54:14 25

A. Yes, I am.

- Do you agree with that? 08:54:15 1 Q. 08:54:16 Α. I do not. 2 Q. Did you review Samsung's documents to determine what 08:54:16 3 Samsung Display sells to Samsung Electronics to go into 08:54:25 their phones that are accused of infringement? 08:54:28 5 08:54:29 A. Yes, I did. Q. Can you please briefly remind us again what exactly is 7 08:54:30 the relationship between the various Samsung entities in 08:54:37 08:54:41 this case? 9 A. Sure. 08:54:41 10 08:54:43 11 Samsung Display manufactures the OLED display, sells that display to Samsung Electronics, who incorporates 08:54:48 12 the display into their mobile phones or accused products, 08:54:54 13 which then sells -- Samsung Electronics sells those 08:54:57 14 products into Samsung America's for sales into the United 08:55:03 15 States. 08:55:07 16 Q. So did I understand that Samsung Display sells the 08:55:07 17 whole OLED display module to Samsung Electronics; is that 08:55:11 18 08:55:13 19 right? 08:55:13 20 A. That's correct. Q. And did you see any testimony from Samsung's witnesses 08:55:14 21 08:55:22 22 talking about the OLED display module?
- A. Yes, it is. Mr. Kwak, is, as I understand it, is a 08:55:30 25

Is this some of that testimony from Mr. Kwak?

08:55:26 23

08:55:26 24

A. I did, yes.

Q.

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08:55:36
            vice president at Samsung Display. And this is his -- and
         1
            when asked a question about the Y-OCTA, which I understand
08:55:38
            to be the flexible metal mesh sensor at issue in this case,
08:55:41
         3
            his explanation of how Samsung incorporates the metal mesh
08:55:46
            sensor into the AMOLED panel all the way up through the
08:55:52
08:55:57
            touch sensor panel itself, so as a wholly integrated unit.
            Q. And I apologize, I think I mispronounced Mr. Kwak's
08:56:00
         7
            name earlier. Thank you very much for correcting me.
08:56:05
08:56:07
                     So this term "wholly integrated," that's not a
            term you came up with, that's a term that comes from
08:56:10
        10
08:56:13
        11
            Samsung's witnesses?
       12
08:56:13
            A. Yes.
08:56:14
        13
            Q. Did you also look at what Samsung uses as the royalty
            base or the smallest salable patent practicing unit in OLED
08:56:23
       14
08:56:27
        15
            licenses that it enters into with other companies in the
            real world?
08:56:31
       16
            A. Yes. In fact, as I mentioned, I've reviewed several
08:56:32
        17
            license agreements, one of which is a license agreement
08:56:36
       18
08:56:38
       19
            with Samsung. And in that license agreement, specifically
        20
08:56:41
            for OLED technology, Samsung itself used the OLED display
            module as the royalty base for which they agreed to pay
08:56:47
        21
08:56:50
        22
            royalty -- royalties on.
08:56:51
        23
            Q. And is this license agreement PTX-509?
08:56:55
       24
            A. Yes.
08:56:55 25
            Q. How do you know that the licenses in this Universal
```

Display, or UDC, license and Samsung are OLED patents? 08:57:04 1 A. Well, I talked with Mr. Credelle about it, but the type 08:57:08 of agreement itself is OLED patent license. 08:57:10 Q. And does this agreement further describe what they 08:57:12 meant by OLED display module? 08:57:16 08:57:20 Yes, it further defines it, that's correct. Is that what we see in Section 1.5 in PTX-509? 08:57:23 7 Q. 08:57:29 A. Yes, ma'am, it is. 8 Q. Can you tell us, at a high level, what they include in 08:57:30 the OLED display module in the UDC license? 08:57:35 10 A. So as shown on the screen, two separate aspects of the 08:57:38 11 OLED display module are identified in the highlighted 08:57:42 12 colors, but the first being the glass substrate, as well as 08:57:45 13 filters and polarizers and other elements of the OLED 08:57:49 14 08:57:53 15 display module, as well as the driving circuitry, controllers, and other components or guts, if you will, I 08:57:56 16 guess, of the OLED display module all incorporated into 08:58:00 17 that wholly integrated unit. 08:58:04 18 Q. So when Samsung is negotiating licenses in a real world 08:58:05 19 20 08:58:11 to OLED patents, they're not just relying on the OLED panel 21 as the royalty base? 08:58:18 08:58:19 22 A. That's correct. It's incorporating the entire module. 08:58:27 23 Q. Mr. Dell, how did you use the OLED display module now 08:58:31 24 that we know that it's the smallest salable patent practicing unit to determine what the royalty base is in 08:58:34 25

```
this case?
08:58:37
         1
            A. So the next step was analyzing, as we mentioned,
08:58:37
            several documents that were produced by Samsung, but
08:58:41
            analyzing confidential sales information from Samsung with
08:58:44
            respect to the sales of OLED display modules in the United
08:58:47
08:58:47
            States.
            Q. And you said you relied on underlying Samsung
08:58:54
        7
            documents. Are those documents PTX-746 and PTX-747?
08:58:57
           A. Yes, ma'am, they are.
08:59:01
                    MS. HENRY: And, Your Honor, I'll note that while
08:59:03
       10
            the parties have an agreement that what's on the slide is
        11
08:59:04
            public, but the exhibits themselves we would ask be entered
08:59:07
        12
           into the record under seal.
08:59:10
       13
                    THE COURT: Without objection, that's so noted.
08:59:12
       14
                    MR. HASLAM: No objection.
08:59:16 15
                    THE COURT: You have no -- thank you.
08:59:17
       16
                    MS. HENRY: Thank you, Your Honor.
08:59:19
       17
                (By Ms. Henry) Mr. Dell, what were you able to
08:59:20
       18
            determine for the number of infringing OLED -- OLED display
08:59:22
       19
       20
08:59:31
            modules for the '311 patent?
08:59:32
       21
            A. Based on my analysis for the '311 patent, we calculated
08:59:35
       22
            40,864,459 OLED display modules sold into the United
08:59:43 23
           States.
08:59:43 24
           Q. And how about for the '338 patent?
           A. For the '338 patent, we calculated 84,788,447 OLED
08:59:45 25
```

- display modules sold in the United States. 08:59:52 1 Q. And what about the '450 patent? 08:59:53 A. For the '450 patent, we've calculated 80,453,559 OLED 08:59:55 3 display modules in the United States. 09:00:04 What was the next step in your royalty base analysis? 09:00:05 5 Q. 09:00:09 A. The next step was determining the revenues attributed to the sales of those specific OLED display modules. 09:00:13 7 09:00:16 Q. How did you go about doing that? 8 09:00:18 A. So analyzing, again, Samsung confidential information, I determined, based on that data, that the average price of 09:00:21 10 09:00:27 the OLED display modules for the '311 patent was \$87.10; 11 09:00:32 12 for the '338 patent, the average OLED display module was \$65.86; and for the '450 patent, that the average price of 09:00:37 13 the OLED display module was \$65.99. 09:00:41 14 09:00:44 15 Q. Mr. Dell, did you see documents from Samsung suggesting that Samsung Display sells OLED display modules for a 09:00:49 higher price to other companies that aren't Samsung 09:00:55 17 companies and even to consumers? 09:00:59 18 A. Yes, I did. 09:01:01 19 09:01:02 20 Q. Why didn't you rely on those higher prices? Why did 21 you use the lower price that Samsung Display sells the 09:01:06 09:01:10 22 modules to Samsung Electronics? 09:01:12 23 A. Because this is based on the data that Samsung produced
- Q. After you did this analysis, after you calculated the 09:01:16 25

with respect to the accused products here.

09:01:15

24

- number of OLED modules sold and the average price, how did 09:01:20 1 you use that to determine the total revenue of OLED display 09:01:24 modules? 09:01:30 3 A. The next step was a little bit simpler, but it was just 09:01:30 multiplying those two numbers together. 09:01:33 09:01:35 Q. And after you multiplied those numbers together, what did you get as the total revenue for the OLED display 09:01:38 09:01:40 modules for the '311 patent? A. For the '311 patent, the total revenues were 09:01:41 \$3,541,204,565. 09:01:52 10 09:01:53 11 Q. Did you say 3 billion with a B? 09:01:56 12 A. Yes, ma'am, I did. 09:01:57 13 Q. Hows about for the '338 patent? 09:01:58 14 | A. For the '338 patent the total revenues were 09:02:06 15 \$5,465,299,346. 16 Q. And what about for the '450 patent? 09:02:07 A. For the '450 patent, the total revenues were 09:02:11 17 18 | \$5,164,983,847. 09:02:19 Q. Are these revenue numbers from OLED display modules 09:02:20 19 09:02:26 20 what you used as the royalty base in your analysis? A. Yes, ma'am, that's correct. 09:02:29 21 09:02:30 22 Q. So now we have the royalty base. Is it okay if we talk
- 09:02:35 24 A. Yes.

09:02:33 23 about the royalty rate?

Q. How do you determine what the appropriate royalty rate 09:02:35 25

is in a case like this? 09:02:39 1 A. Well, once again we look to the law. And there's a set 09:02:40 of factors that are -- damages experts such as myself use 09:02:44 09:02:48 when determining reasonable royalty rates. These factors are known as the Georgia-Pacific factors. 09:02:52 5 09:02:53 Did you create this set of factors? No, I did not. 09:02:55 7 Α. Q. Where did they come from? 09:02:56 8 A. They come from a case called the Georgia-Pacific case, 09:02:57 09:03:01 10 as we refer to it. 09:03:02 Q. And it looks like here we've -- you've divided them 11 into three categories. Why did you do that? 09:03:06 12 A. Generally speaking, the factors -- each individual 09:03:08 13 factor, there are some similarities with respect to the --09:03:12 14 09:03:16 15 what they relate to, so economic factors, there's licensing factors, as I mentioned, as well as technical factors. 09:03:20 Q. It looks like to me, from this slide, that Factor 15 is 09:03:23 17 sort of sitting off all by itself. Why is that? 09:03:28 18 09:03:31 19 A. Well, Factor 15 is the hypothetical negotiation, which 09:03:34 20 really looks at all of those factors sort of all together, if you will. 09:03:40 21 09:03:40 22 Q. What is a hypothetical negotiation? 09:03:42 23 A. Well, the hypothetical negotiation is a recreation of a 09:03:50 24 negotiation that obviously didn't occur, but it's between a

patent owner and a patent user or an infringer at the

09:03:52 25

date -- at the time of first infringement. 09:03:56 1 Q. Are there a set of assumptions or what we might call 09:03:58 ground rules that you have to take into account for this 09:04:04 3 hypothetical negotiation? 09:04:07 A. Yes, there are. 09:04:07 5 09:04:08 Q. What are those rules? A. Well, because it's a recreation, the parties would 09:04:09 7 acknowledge that the patents are valid and infringed. 09:04:15 8 09:04:18 part of that, Samsung, as the patent user, would acknowledge that its patents infringe and that they must 09:04:25 10 09:04:28 11 pay for rights to use those technology; therefore, they must enter into a license. 12 09:04:33 And because of that construct, the parties would 09:04:34 13 willingly negotiate, and we would have what we call the 09:04:36 14 09:04:39 15 cards -- cards dealt face up or all cards on the table, fairly similar to what you may recall Mr. Ward in his 09:04:42 16 09:04:46 opening statements with this crystal ball kind of concept. 17 09:04:49 18 Q. That means everyone knows what's going to happen in the future? 09:04:51 19 20 09:04:52 A. Yes. 21 Q. Is this a license -- is this a negotiation that 09:04:53 09:04:55 22 actually happened? 09:04:57 23 A. No, it is not. 09:04:58 24 Q. Is it your opinion that there would have been a single

hypothetical negotiation for all three of the patents in

09:05:04 25

1 | this case? 09:05:07 09:05:07 A. No. Q. Why not? 09:05:08 3 A. Well, as we've heard, again, over the last couple of 09:05:09 days, the patents were previously owned by Casio on one 09:05:13 09:05:17 hand and Atmel on the other. Q. So did you determine that there would be two separate 09:05:18 7 hypothetical negotiations? 09:05:22 09:05:23 A. Yes. 9 Q. Let's talk first, please, about the '311 patent 09:05:23 10 09:05:32 11 hypothetical negotiation. 12 When does that hypothetical negotiation occur? 09:05:32 A. In April of 2017. 09:05:34 13 Q. And how did you get that date? 09:05:36 14 09:05:38 15 A. That's based on the date of first infringement. Q. And who are the parties sitting down at this 09:05:41 16 09:05:44 negotiation table? 17 A. At that time, it would have been Atmel as the patent 09:05:45 18 owner and Samsung as the patent user or infringer. 09:05:49 19 09:05:52 20 Q. Can you help us understand, if Solas is the Plaintiff 21 in this case and they're the owner of the patent, why is it 09:05:56 09:05:59 22 Atmel that's sitting at the negotiation table? 09:06:02 23 A. Because in April of 2017, Atmel had not yet sold the 09:06:08 24 patents, so they still owned them at that time. 09:06:09 25 Q. What do you consider to help you understand and

```
determine what the parties would have negotiated as a
09:06:15
         1
09:06:18
           royalty rate in April of 2017?
09:06:22
           A. Well, again, we go back to the Georgia-Pacific factors.
            Q. Now, this slide looks a little different than the one
09:06:26
            that you used earlier for the Georgia-Pacific factors. Why
09:06:29
09:06:32
            is that?
        7
           A. This is more of a summary of those factors, as well as
09:06:32
            in their categories of the technical benefits factors,
09:06:36
09:06:40
            economic factors, and licensing factors.
            Q. Where did you start in your analysis?
09:06:42
        10
09:06:44
           A. So I started with the technical benefits.
        11
           Q. How did you determine what the technical benefits were
09:06:47
        12
           for the '311 patent?
09:06:51
        13
           A. Well, it gets a little bit outside of my area of
09:06:52
       14
09:06:56
       15
           expertise, so I discussed that with Mr. Credelle.
           Q. And can you just remind us, at a high level, what is
09:06:58
       16
09:07:04
            the technology in the '311 patent?
       17
           A. It is a flexible metal mesh touch sensor that's
09:07:07
       18
09:07:10
       19
           configured to wrap around one or more edges of a display.
09:07:13 20
            Q. So that's what we've been calling the touch sensor
09:07:16 21
           patent?
09:07:17
       22
           A. Yes.
09:07:17 23
           Q. After your discussions with Mr. Credelle, what did he
09:07:21
       24
           tell you what were technical benefits of the '311 patent?
```

A. And I believe he testified to this yesterday, as well,

09:07:23 25

```
but the benefits of the '311 patent are they provide a less
09:07:27
        1
           resistive sensor with better touch response. Importantly,
09:07:32
           they are lower cost. They're more flexible, provide
09:07:37
            greater surface area for touch, which also has some design
09:07:42
            benefits of providing a slim or no border. And then,
09:07:45
            additionally, as I just mentioned, new form factors or new
09:07:48
            designs that are enabled by that technology.
09:07:52
        7
09:07:54
            Q. You said lower costs. Does that end up being an
         8
            important part of your damages analysis for the '311
09:07:58
09:08:00
       10
           patent?
09:08:00
           A. Yes, it does, a very important part.
        11
                    MS. HENRY: Your Honor, at this time, we're going
09:08:03
       12
           to begin to get into confidential information. I ask the
09:08:05
       13
           courtroom be sealed.
09:08:09
       14
                    THE COURT: All right. Based on counsel's
09:08:09
       15
           request, I'll order the courtroom sealed.
09:08:12
       17
                    Those present who are not subject to the
09:08:14
           protective order that's been entered in this case should
09:08:16
       18
            excuse themselves and remain outside the courtroom until
09:08:19
       19
09:08:21
       20
            it's reopened and unsealed.
                     (Courtroom sealed.)
09:08:23 21
09:08:23 22
                     (This portion of the transcript is sealed
09:08:23 23
                    and filed under separate cover as
09:08:23 24
                    Sealed Portion No. 8.)
09:44:52 25
                    (Courtroom unsealed.)
```

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MS. HENRY: Thank you, Your Honor.
09:44:53
         1
                     THE COURT: Please proceed.
09:44:54
         2
                     MS. HENRY: Thank you, Your Honor.
09:44:54
         3
09:44:55
            Q.
                (By Ms. Henry) Mr. Dell, before we unsealed the
         4
            courtroom, you talked, at a high level, about economic
09:44:57
         5
09:45:00
            factors.
        7
                     How did you use the economic factors to help you
09:45:01
            determine what the appropriate royalty rate is for the '450
09:45:05
            and '338 patents?
09:45:09
            A. Again, similarly to the analysis for the '311 patent,
09:45:10
        10
09:45:16
        11
            is looking at the relative bargaining positions, taking
            into account Samsung's business risks, its manufacturing
09:45:20
        12
            capabilities, its brand name, and ultimately it's my
09:45:23
        13
            opinion based on the considerations of Casio at the time,
09:45:28
       14
09:45:30
        15
            as well as Samsung at the time, that the parties would
            agree to negotiate between the range of .35 and 7 --
09:45:33
        16
            sorry -- .35 percent and .7 percent.
09:45:37
        17
            Q. And what did you determine the parties would have
        18
09:45:41
09:45:44
       19
            agreed to within that range as the appropriate royalty rate
        20
09:45:47
            for each of those patents?
09:45:48
        21
            A. It was my opinion that the appropriate royalty rate is
09:45:51
        22
            .5 percent for the '450 patent, as well as .5 percent for
09:45:56
       23
            the '338 patent.
09:45:56
       24
            Q. Mr. Dell, did you also look at some other license
            agreements between UDC and other companies for UDC's OLED
09:46:03 25
```

```
09:46:07
        1
           patents?
09:46:07
           A. Yes, I did.
           Q. Is PTX-744 one of those agreements?
09:46:08
         3
               Yes, it is.
09:46:13
           Α.
               What company is PTX-744 with?
09:46:14
         5
            Q.
09:46:17
           Α.
               With Konica Minolta.
        7
           Q. I apologize. That was a poorly worded question.
09:46:27
09:46:27
         8
                    Who are the parties to this agreement?
09:46:28
           A. Well, the parties are Universal Display is the
            licensor, as we've heard, and Konica Minolta is the
09:46:32
        10
09:46:35
       11
           licensee.
       12
           Q. And what were the royalty rates that Konica Minolta
09:46:35
09:46:38
       13
            agreed to pay UDC for UDC's patents?
           A. They agreed to pay royalty rates ranging from
09:46:42
       14
            2.3 percent up to 3 percent, based upon the amount of sales
09:46:47
       15
           or revenues, anywhere from a hundred to over $500 million
09:46:48
       16
09:46:52
            in revenues, as a part of that license.
       17
           Q. And did you see even another UDC license agreement with
09:46:53
       18
           another company?
09:46:57
       19
09:46:58
       20
           A. Yes, I did.
09:46:58 21
           Q. Is PTX-743 that license agreement?
09:47:05
       22
           A. Yes, it is. This is a 2011 license agreement between
09:47:10 23
           Universal Display and a company, Pioneer Corporation.
09:47:14 24
            Q. And similar to the Konica Minolta and the Samsung/UDC
09:47:20 25
            agreements that we've talked about, was this also a license
```

1 to UDC's OLED patents? 09:47:22 A. Yes, it was, that's my understanding. 09:47:25 Q. And what was the royalty rate that Pioneer agreed to 09:47:27 3 pay for the UDC OLED patents? 09:47:31 A. They agreed to pay 3 percent, and then in some 09:47:34 5 09:47:37 situations 4 percent. Q. Mr. Dell, you've got licenses where companies are 09:47:38 7 agreeing to pay 3 and 4 percent as a royalty rate for OLED 09:47:44 patents. Why is your license rate only .5 percent for the 09:47:50 OLED patents at issue in this case? 09:47:54 10 11 A. Because we have direct evidence or contemporaneous 09:47:55 09:48:00 12 business documents which indicate what Samsung has been 09:48:03 13 willing to pay for rights to use comparable technologies. So I've relied upon that directly. 09:48:06 14 09:48:08 15 Q. So you relied on the lower rate because you thought that's what was required by the documents; is that right? 09:48:11 16 A. I don't know that I would say it that way, as much as 09:48:13 17 it shows what Samsung has been willing to pay in actual 09:48:18 18 09:48:21 19 business transactions and how it's applied those rates in 09:48:24 20 the real world. 21 09:48:24 Q. What is your opinion of the appropriate amount of 09:48:28 22 damages that Samsung owes Solas for its infringement of the 09:48:35 23 '450 patent? 09:48:35 24 A. It's my opinion applying my reasonable royalty rate 09:48:41 25 opinion of .5 percent to the \$5.16 billion in OLED display

module revenue results in reasonable royalty damages of 09:48:44 1 \$25,824,919. 09:48:47 Q. And what's your opinion of the amount of damages that 09:48:50 3 Samsung owes Solas for its infringement of the '338 patent? 09:48:54 A. Applying my royalty rate of .5 percent to the 09:48:58 09:49:03 \$5.46 billion in OLED display module revenue results in royalty damages of \$27,326,497. 09:49:10 Q. Mr. Dell, we've talked about quite a few things in the 09:49:15 8 last hour or so, but the one thing we haven't really talked 09:49:21 09:49:25 10 about is the purchase agreements that -- when Solas bought these patents. Is it okay if we talk about those now? 09:49:30 11 A. Of course. 09:49:34 12 09:49:34 13 Q. And you were aware of these purchase agreements during your analysis? 09:49:37 14 09:49:37 15 A. Yes. Q. How much did Solas pay for the Microchip patents that 09:49:38 includes the '311 patent? 09:49:44 17 A. \$500,000. 09:49:46 18 Q. And how many licenses were at issue in that purchase? 09:49:48 19 20 09:49:50 A. I'm sorry? 09:49:52 21 Q. Excuse me, how many patents were at issue in that 22 purchase? 09:49:55 09:49:55 23 A. In that purchase, I believe it was nine patents -- or 09:50:00 24 patent applications.

Q. Were there also some patent applications?

09:50:01 25

- 1 A. Yes, that's correct. 09:50:03
- And is that Microchip/Solas purchase agreement PTX-549? 09:50:04 Q.
- A. Yes. 09:50:10 3
- Q. And in PTX-550, is that the purchase agreement between 09:50:10
- Casio and Solas that included the purchase of the '450 and 09:50:17
- 09:50:21 the '338 patents?
- A. Yes, ma'am, it is. 09:50:21 7
- Q. And do you recall how much money Solas paid to buy that 09:50:23 8
- 09:50:27 Casio portfolio?
- A. \$1.15 million. 09:50:28 10
- Q. Did you consider those purchase prices as part of your 09:50:32 11
- 09:50:36 12 analysis?
- 09:50:36 13 A. I considered them, yes.
- Q. Did they form the basis of your opinion on damages? 09:50:37 14
- 09:50:41 15 A. No, they did not.
- 09:50:42 16 Q. Why not?
- A. Because those purchases do not in any way take into 09:50:43 17
- account Samsung's extent of use of the technologies that 09:50:46 18
- 09:50:51 19 were required.
- 09:50:51 20 Q. Are you aware that Samsung has hired a damages expert
- 09:50:54 21 in this case?
- 09:50:55 22 A. Yes.
- 09:50:55 23 Q. And are you aware that he says that the appropriate
- 09:50:58 24 amount of damages is the amount that Solas paid for the
- 09:51:02 25 patents?

- 09:51:03 1 A. Yes.
- Do you agree with that? 09:51:03 Q.
- A. Not at all. 09:51:04 3
- 09:51:07 Q. Tell us why not.
- A. Again, it doesn't in any way look at what the law 09:51:08
- 09:51:10 requires, which is the extent of use for the use made of
- the invention. It is in no way tied to Samsung's actual 09:51:14 7
- 09:51:18 use of the technology.
- Q. Does the purchase price take into account all of the 09:51:19
- investment that Solas has made to attempt to determine 09:51:23 10
- 11 infringement -- who's infringing, the value of that 09:51:27
- 09:51:30 12 infringement, and the money they've expended to attempt to
- enforce those patents? 09:51:34 13
- A. No, it does not. 09:51:34 14
- 09:51:35 15 Q. Does the purchase price take into account in any way
- Samsung's use of the patents at issue in this case? 09:51:39
- A. No, not -- none whatsoever. 09:51:43 17
- Q. Mr. Dell, what was the very first thing we talked about 09:51:45 18
- 09:51:49 19 that you used to determine your opinion on damages?
- 09:51:54 20 A. The damages statute.
- 09:51:57 21 Q. Does the damages statute say that Solas should get
- 22 damages of a reasonable royalty, and in no event less than 09:52:04
- 09:52:06 23 the purchase price paid for the patents?
- 09:52:08 24 A. No, it does not say that.
- 09:52:10 25 Q. What does it say?

```
A. It says, in no event less than a reasonable royalty for
09:52:11
         1
           the use made of the invention by the infringer.
09:52:16
            Q. Mr. Dell, for the final time, can you please summarize
09:52:18
         3
            for the jury one more time what your opinion is for the
09:52:22
            damages that Samsung owes Solas for each of the patents at
09:52:25
09:52:28
            issue in this case?
            A. Yes. For the '311 patent, the reasonable royalty
09:52:29
        7
            damages are $35.4 million; for the '450 patent, the
09:52:32
         8
            reasonable royalty damages are $25.8 million; and for the
09:52:37
            '338 patent, royalty damages are $27.3 million. For a
09:52:44
        10
            total reasonable royalty damages of $88,563,462.
09:52:48
        11
            Q. Thank you, Mr. Dell.
09:52:53
        12
09:52:55
        13
                    MS. HENRY: I pass the witness.
                    THE COURT: All right. Ladies and gentlemen,
09:52:56
       14
09:52:58
       15
           before we proceed with cross-examination, we're going to
            take a short recess. If you will simply leave your
09:53:01
       16
            notebooks in your chairs and follow all the instructions
09:53:04
       17
            I've given you about your conduct throughout the trial,
09:53:07
       18
09:53:10
       19
            including, of course, not to discuss the case with each
09:53:12
       20
            other, we'll have you back in here shortly, at which time
            the Defendants will cross-examine this witness.
09:53:16
       21
09:53:18
       22
                    The jury is excused for recess at this time.
09:53:20 23
                    COURT SECURITY OFFICER: All rise.
09:53:22 24
                    (Jury out.)
09:53:22 25
                    THE COURT: Be seated, please.
```

```
Do we have the interpreter present who will be
09:53:58
         1
           used with the Samsung witnesses later in the trial? I'd
09:54:04
         3
            like to get him sworn on the record if he's available or
09:54:08
           she's available.
09:54:11
                    And am I correct we have just one interpreter; is
09:54:24
         5
           that right?
09:54:27
        6
        7
                    MR. HASLAM: Yes.
09:54:27
09:54:30
         8
                    MR. LERNER: Yes.
                    MS. HENRY: Your Honor, we have a check
09:54:31
        9
            interpreter present in the courtroom, but we understand
09:54:32
       10
           that she will not sit up here.
09:54:34
        11
                    THE COURT: That's your benefit and tool, not the
09:54:36
       12
09:54:38 13
           Court's.
09:54:39 14
                    MS. HENRY: Thank you, Your Honor.
09:54:44
       15
                    THE COURT: If the interpreter will come forward,
           please, I'm going to ask the courtroom deputy to administer
09:54:46 16
           the oath.
09:54:50 17
09:54:52
       18
                     (Interpreter sworn.)
                    THE COURT: And could we get the interpreter's
09:55:08 19
09:55:10 20
           name for the record, please?
09:55:11
       21
                    THE INTERPRETER: Janie Wright, sir.
09:55:17 22
                    THE COURT: Thank you, ma'am.
09:55:18 23
                    We'll consider the interpreter sworn, and then
09:55:20 24 when we get to that witness, we won't have that to do.
09:55:23 25
                    We're going to take a short recess, about ten
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minutes, and we'll be back for cross-examination.
09:55:27 1
                    Do you have something, Mr. Haslam?
09:55:29
         2
                    MR. HASLAM: While we're on the break, can we
09:55:30
         3
           distribute the binders and save some time?
09:55:33
        4
09:55:36
         5
                    THE COURT: That would be a good idea.
                    The Court stands in recess.
09:55:38
        6
                    COURT SECURITY OFFICER: All rise.
        7
09:55:42
09:55:42
                    (Recess.)
         8
10:13:38
         9
                    (Jury out.)
                    COURT SECURITY OFFICER: All rise.
10:13:39 10
                    THE COURT: Be seated, please.
10:13:39 11
10:13:41 12
                    All right. Are you prepared to go forward with
          cross-examination, Mr. Haslam?
10:13:52 13
                    MR. HASLAM: I am, Your Honor. And to save time
10:13:53 14
10:13:57 15
           about sealing and unsealing, I think it's probably best if
           we go on the sealed record and start. We'll save time
10:14:02 16
10:14:07 17
           people going in and out.
       18
                    THE COURT: All right. Well, make that request
10:14:09
           once the jury is in the box.
10:14:12 19
10:14:13 20
                    MR. HASLAM: Yes, sir.
10:14:14 21
                    THE COURT: Let's bring in the jury, please.
10:14:44 22
                    COURT SECURITY OFFICER: All rise.
10:14:45 23
                    (Jury in.)
10:15:13 24
                    THE COURT: Please be seated.
10:15:13 25
                    Before we proceed with cross-examination, I
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noticed, Mr. Talton, you have a mask on as well as a
10:15:31
        1
            shield. Are you not comfortable with just the shield, or
10:15:36
            would you prefer a clear mask? It's important that the
10:15:39
10:15:42
            lawyers be able to see -- see your face.
                     JUROR: I'm comfortable without it, like that.
10:15:46
         5
10:15:48
            Thank you.
        6
        7
                     THE COURT: Are you comfortable, sir?
10:15:49
                     JUROR: Oh, yeah.
10:15:51
         8
10:15:52
                     THE COURT: Okay. Thank you very much.
         9
                     Mr. Haslam, proceed with cross-examination.
10:15:53 10
10:15:56
                     MR. HASLAM: Your Honor, I'd ask that the
       11
           courtroom be sealed.
10:15:57
       12
10:15:59
       13
                     THE COURT: Based on counsel's request to protect
            confidential and proprietary information, I will order the
10:16:02
       14
           courtroom sealed at this time.
10:16:05
       15
                     Those present not subject to the protective order
10:16:06
       16
            that's been entered in this case should excuse themselves
10:16:08
       17
            and remain outside until the courtroom is unsealed and
10:16:11
       18
10:16:14
       19
            reopened.
10:16:28 20
                     All right. The courtroom is sealed, as is the
            transcript.
10:16:32
       21
10:16:32
       22
                     (Courtroom sealed.)
10:16:32 23
                     (This portion of the transcript is sealed
10:16:32 24
                    and filed under separate cover as
10:16:33 25
                    Sealed Portion No. 9.)
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10:16:33
         1
                    (Courtroom unsealed.)
                    THE COURT: Mr. Dell, you may step down, sir.
11:28:06
         2
                    THE WITNESS: Thank you.
11:28:09
         3
11:28:13
                    Would you like me to take these now?
        4
11:28:16
         5
                    THE COURT: Just leave everything there, except
11:28:17 6 your bottle of water.
11:28:20 7
                    All right. For the record, the courtroom is
           unsealed. The public has returned.
11:28:38 8
                    Plaintiff, call your next witness.
11:28:43
       9
                    MR. FENSTER: Your Honor, I'm pleased to report
11:28:45 10
11:28:49 11 | that Plaintiff Solas rests its case-in-chief at this time.
                    THE COURT: Plaintiff having rested its
11:28:52 12
11:28:55 13 | case-in-chief, is Defendant prepared to go forward with its
11:28:59 14 | case-in-chief?
11:29:01 15
                   MR. HASLAM: Yes, we are, Your Honor.
                    THE COURT: Please call your first witness.
11:29:03 16
                    MR. LERNER: Your Honor, Defendants' first witness
11:29:22 17
11:29:25 18 | will be Mr. Joseph Repice.
                    THE COURT: Mr. Repice, if you'll come forward and
11:29:28 19
11:29:31 20 | be sworn by the courtroom deputy, please.
11:29:33 21
                    (Witness sworn.)
11:29:34 22
                    THE COURT: Please come around, sir, have a seat
11:29:37 23 on the witness stand.
11:29:45 24
                   THE WITNESS: Should these binders be returned to
11:29:47 25 | someone?
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11:29:48	1	THE COURT: Mr. Johnston will take them.
11:29:53	2	Yes, Mr. Lerner?
11:29:57	3	MR. LERNER: We have two physical exhibits for
11:30:00	4	Mr. Repice. May I hand those up?
11:30:02	5	THE COURT: You may approach the witness.
11:30:10	6	All right. Counsel, you may proceed with your
11:30:12	7	direct examination.
11:30:15	8	MR. LERNER: Thank you, Your Honor.
11:30:15	9	JOSEPH REPICE, DEFENDANT'S WITNESS, SWORN
11:30:15	10	DIRECT EXAMINATION
11:30:19	11	BY MR. LERNER:
11:30:19	12	Q. Good morning, Mr. Repice.
11:30:21	13	A. Morning.
11:30:22	14	Q. Can you please introduce yourself to the jury?
11:30:24	15	A. My name is Joseph Repice.
11:30:25	16	Q. Where do you work?
11:30:26	17	A. I actually work for Samsung Electronics America.
11:30:29	18	Q. And why are you testifying today?
11:30:31	19	A. Well, I've been in the telecom industry for almost
11:30:34	20	25 years. I've been at Samsung for the last nine of those.
11:30:38	21	I've had the, I guess you'd say, the privilege of working
11:30:41	22	across multiple disciplines within the organization. So
11:30:43	23	I've ranged from strategy to technical marketing to product
11:30:47	24	planning, and I've got a pretty good understanding of what
11:30:51	25	it takes to commercialize our products for the U.S.

Q. What's your position at Samsung Electronics America? 11:30:53 1 A. I'm currently the director of advanced product 11:30:55 planning. 11:30:57 Q. And can you explain to the jury about what that is? 11:30:59 A. Sure. So, to keep it simple, I mean, our team 11:31:02 5 primarily looks for consumer unmet needs. So that's 11:31:07 basically things that can't be done with the phone or areas 11:31:11 where the consumer wants to do something that doesn't exist 11:31:13 yet. 11:31:17 9 And our team looks for ways to resolve that or 11:31:17 10 basically solve those issues and then get them integrated 11:31:20 11 into the products that we would consider launching within 11:31:24 12 the U.S. market. 11:31:27 13 Q. Do you like your job? 11:31:28 14 11:31:29 A. Yeah, absolutely. I get to work on phones, get to 15 launch something new every year. It's always a challenge. 11:31:34 And then, you know, I get to see phones in other people's 11:31:37 17 hands, and, you know, I've worked on a lot of them. So 11:31:39 18 11:31:42 19 it's nice to see my product in the hands of other people. 11:31:45 20 THE COURT: Mr. Repice, pull the microphone a little closer to you, sir. And, like Mr. Dell, try to slow 11:31:47 21 11:31:50 22 down a little bit. 11:31:50 23 THE WITNESS: Okay. I'm sorry, sir. 11:31:52 24 THE COURT: That's all right. 11:31:53 25 THE WITNESS: I wasn't here for most of his

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11:31:55
        1 testimony.
11:31:56
                    THE COURT: That's all right. Just try to slow
         2
            down.
11:31:59
         3
                    Go ahead, counsel.
11:31:59
         4
                    MR. LERNER: Thank you.
11:32:00
         5
11:32:01
            Q. (By Mr. Lerner) Can you tell the jury a bit about
        7
            yourself?
11:32:03
            A. Sure. I'm married, be 25 years next month. I've got
11:32:03
            two boys, one who's a senior at the University of Texas in
11:32:07
            Austin, who will be graduating in May. And my younger one
11:32:11
        10
11:32:14
            is a sophomore actually, and he swims for Duke University.
        11
            Q. And can you tell us a little about your background --
11:32:19
       12
            your educational background?
11:32:24
       13
            A. Sure. So I'm actually an engineer by training. I have
11:32:25
       14
11:32:32
       15
            two electrical engineering degrees. I have a Bachelor's of
            Science in electrical from Syracuse University, and I have
11:32:36
       16
            a Master's of electrical also from Syracuse University.
11:32:39
       17
            Q. And what was your job experience before you joined
11:32:43
       18
            Samsung Electronics America?
11:32:45
       19
       20
11:32:46
            A. So I first started out actually working for GE
            Aerospace, which is now Lockheed Martin, and then from
11:32:51
        21
11:32:56
       22
            there I went to work at Ericsson. And prior to Samsung, I
11:33:02
       23
            was at a company called Spirent Communications.
11:33:05 24
            Q. What was your work at GE Aerospace?
            A. When I was at GE Aerospace, I worked in electronic
11:33:09 25
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warfare actually. So I worked on the F-22 tactical 11:33:13 1 fighter, but that's kind of all I'm allowed to say. 11:33:14 Q. How about at Ericsson, what did you work on there? 11:33:16 3 A. So it takes years to get a plane out the door, 11:33:19 literally years, and I kind of wanted to work on something 11:33:22 5 11:33:25 that was a little bit more, let's just say, released products on a more yearly basis, so I moved into telecom. 11:33:28 7 11:33:34 8 At Ericsson, I was primarily working on radio base station communications, basically the other end of a cell 11:33:38 phone in terms of what actually completes the call when you 11:33:40 10 11:33:43 11 dial. 11:33:43 12 Q. What was your work at Spirent? A. At Spirent, I actually shifted over to testing cell 11:33:45 13 phones. So Spirent is a test and measurement company that 11:33:51 14 11:33:55 15 basically builds equipment to test cell phone products, as well as other parts of the telecom network. 11:33:55 16 17 And then obviously at Samsung, I work on the 11:34:00 phones themselves. 11:34:01 18 Q. What brought you to Samsung Electronics America? 11:34:01 19 20 11:34:06 A. It's actually a funny story. They actually hired my 21 wife about 10 years ago, and they then hired me nine months 11:34:10 11:34:14 22 later. 11:34:14 23 My wife has since left the company, and the 11:34:18 24 running joke in HR is that they hired a Repice, and they

11:34:23 25

ended up with me.

- Q. Where is your office? 11:34:24 1
- A. Currently in my house, but normally, prior to COVID, it 11:34:25
- was in Plano, Texas. 11:34:31
- Q. And how many employees does Samsung Electronics America 11:34:32
- have in the Texas area? 11:34:34
- 11:34:36 In the Texas area we're about 2,000.
- Q. How many employees is it overall in the United States? 11:34:38 7
- 11:34:41 A. In the U.S., we're in the neighborhood of 5,500. 8
- Q. How long have Samsung Electronics America been around? 11:34:43
- A. So SEA, if I'm not mistaken, was founded in 1978, so be 11:34:48 10
- a little over 40 years. 11:34:54
- Q. All right. I know it's enough when you said SEA, can 11:34:56 12
- you just explain to the jury what that acronym refers to? 11:34:59 13
- A. Sure. I'm sorry. So I actually work for one of the 11:35:02 14
- 11:35:06 15 defendants that has been named, Samsung Electronics
- America. I may refer to it as SEA for short, if that's 11:35:07
- okay? 11:35:11 17
- Q. That's okay with me, just wanted everyone to be on the 11:35:12 18
- 11:35:15 19 same page.
- 20 11:35:15 What does Samsung Electronics America do?
- A. Well, I guess you could say that our main focus is to 11:35:18 21
- 22 commercialize the products that SEC, which is Samsung 11:35:27
- 11:35:37 23 Electronics Company, makes for the U.S. market.
- 11:35:38 24 And I guess the best way to describe that would be
- to give you some highlights of sort of what that involves. 11:35:41 25

So that's going to go from importing the phone to the 11:35:44 1 United States, there'll be testing of the devices, there'll 11:35:47 be marketing of the devices. We'll sell the devices. 11:35:50 3 Now, most of the time that's going to be through a 11:35:54 carrier, like an AT&T or a Verizon that you're all familiar 11:35:56 5 11:36:01 with, or a retailer, like Best Buy. And then, obviously, we offer services, you know, when something goes wrong on 11:36:04 7 the device. But, in essence, we're commercializing a 11:36:06 product made by SEC within the U.S. 11:36:10 Q. Are you attending the trial on behalf of both Samsung 11:36:12 10 11:36:18 Electronics America and Samsung Electronics Company? 11 A. I am. I'm here for SEA and SEC. 11:36:19 12 11:36:22 13 Q. And what's their relationship? A. SEC is the parent company of SEA. 11:36:24 14 11:36:27 15 Q. What kind of products does Samsung Electronics make? A. So Samsung Electronics as a whole is a global tech 11:36:31 leader. I mean, obviously we make mobile products, that's 11:36:36 17 why we all are here today and what we've heard about over 11:36:39 18 11:36:43 19 the last few days. 20 11:36:45 In addition, we make appliances, so washing machines, refrigerators, dishwashers, TVs obviously, and 11:36:47 21

down to the chip level. So we have fabs within the United States, as well as other countries, that produce components, like memory chips or processor chips.

11:36:52

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Q. And in your experience, how would you describe the work

that Samsung Electronics does? 11:37:03 1 A. I mean, in simple terms, we try to make innovative 11:37:04 products that people love. I mean, you've seen our 11:37:09 commercials, right, we're looking for the next big thing 11:37:12 or -- to try and enable you to be able to do something you 11:37:15 5 11:37:18 weren't able to do before. So we're basically trying to use technology as it rolls out, to make your life simpler. 11:37:21 7 Q. How long has Samsung Electronics been in the mobile 11:37:25 8 phone business? 11:37:28 A. So Samsung Electronics was actually formed in 1969 in 11:37:29 10 Korea. And I believe they -- I believe they started 11:37:35 11 producing phones in the mid-'80s, and then we, SEA, started 11:37:40 12 to sell them around 1996. 11:37:46 13 Q. Do you have a slide that shows some of the mobile 11:37:49 14 11:37:54 15 products that Samsung Electronics America sells? A. Yes, I understand there should be one. 11:37:57 16 17 MR. LERNER: Mr. Beall, can we please have 11:37:59 DDX-3-001? 11:38:04 18 Q. (By Mr. Lerner) Mr. Repice, can you please explain 11:38:06 19 11:38:08 20 what's shown on this slide? A. Sure. So this is -- starting in the upper left-hand 11:38:10 21 11:38:13 22 corner, this is actually one of our newer products. It's 11:38:16 23 actually one of the foldable smartphone devices. This is 11:38:19 24 actually the Z Flip 5G. 11:38:24 25 Going across the top, it's actually one of the

11:38:26 tablets that we support within SEA. This one looks to be a 1 little bit more durable, given the kid playing with it. 11:38:31 And then on the bottom of the slide, it is sort of 11:38:34 3 a ruggedized version of one of our newer flagships, the 11:38:40 4 S20, that's basically meant for use in the military, as 11:38:44 5 11:38:48 well as public safety. Q. Earlier, you had mentioned identifying unmet customer 11:38:49 7 needs and developing products to meet those needs. How 11:38:54 does your team go about doing that? 11:38:57 A. I'll try and keep it at a high level just to make it 11:38:59 10 11:39:05 simple. 11 11:39:05 12 So just kind of three areas that we'll focus on, one will be market and consumer. So what are the trends 11:39:08 13 currently going on? What are the changes in the 11:39:12 14 11:39:14 15 environment? Next, we're actually look at some research, which 11:39:15 16 will be third-party research, it may be consumer surveys, 11:39:19 17 11:39:23 18 anything along those lines. And then, lastly, we're going to look at 11:39:24 19 11:39:26 20 technology itself, meaning what's coming out, what's 21 emerging, what's actually happening in the market. And we 11:39:30 11:39:32 22 take all of that combined, as well as our years of 11:39:36 23 experience within telecom, and we try to use that 11:39:38 24 information to generate a solution. 11:39:40 25 Q. Who manufactures the Galaxy smartphones?

- A. So the Galaxy smartphones are manufactured by SEC, 11:39:44 1 11:39:50 Samsung Electronics Corporation.
- Q. Where does Samsung Electronics get the OLED displays 11:39:51 3 that are used in some of those products?
- A. So Samsung Electronics Corporation will get their OLED 11:39:57 5 displays from SDC, which is Samsung Display Corporation.
  - Q. Can you describe the relationship between Samsung Electronics on the one hand and Samsung Display on the other?
  - A. Sure. So I'll just -- similar to the charts you guys have seen, I'll just go left to right.

So Samsung Display Company is actually an independent company, and they are a component manufacturer and they manufacture the OLED displays that we've heard about in the case.

SEC is actually Samsung Electronics, and they will purchase those displays from SDC, but the companies are actually independent, which is why every time we talk about SDC I actually have to leave the courtroom.

- Q. Does Samsung Display sell OLED displays to other companies that compete with Samsung Electronics?
- A. Yes. Samsung Display is a component vendor that actually sells to multiple companies. I think in the opening, we heard both Apple and Google were customers of Samsung Display. So it is not that they just sell to

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- 11:40:01

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- 11:40:44 19
- 20 11:40:47
- 11:40:50 21
- 11:40:52 22
- 11:40:56 23
- 11:40:59 24
- 11:41:05 25

- Samsung. They can sell to anyone. 11:41:11 1
- 11:41:13 Q. Does Samsung Electronics have some ownership share in
- Samsung Display? 11:41:15 3
- A. Yes, I believe SEC is a shareholder within SDC. And I 11:41:15
- think the percentage is in the neighborhood of 80 percent. 11:41:19
- 11:41:22 I may not have the exact number, but it's in that ballpark.
- Q. But does Samsung Electronics have access to the 11:41:25 7
- confidential information of Samsung Display? 11:41:29 8
- A. No, we do not. 11:41:30
- 11:41:31 10 Q. Why not?
- 11:41:32 A. Well, they sell to our competitors. I mean, they can 11
- sell displays to anybody who is looking to purchase a 11:41:36 12
- display. But in particular to SEA, obviously Apple and 11:41:38 13
- Google are both competitors within the phone space. So we 11:41:43 14
- 11:41:45 15 have to do business at arm's length. And, in essence,
- there's a wall between the companies. 11:41:48 16
- Q. Why did Samsung Electronics select Samsung Display to 11:41:50 17
- supply its OLED displays? 18 11:41:54
- A. Samsung Display is an innovator in display technology, 11:41:55 19
- 20 11:42:01 and, you know, we're always trying to innovate. And
- 21 they're well-known for what they do, and they have some of 11:42:04
- 11:42:08 22 the best displays in the market. So we integrate them into
- 11:42:11 23 our phones.
- 11:42:11 24 Q. Is innovation important to Samsung Electronics?
- A. Yes, absolutely. You know, in the nine years that I've 11:42:14 25

been at Samsung, just to name a few of the sort of 11:42:19 1 top-level innovations, I mean, the original idea for a 11:42:22 larger phone, what used to be referred to as a tablet, came 11:42:26 3 from Samsung. 11:42:29 And then, you know, water resistance, the ability 11:42:30 5 to do wireless charging, charge the phone without cables, 11:42:31 power share, you know, having the phone charge other 11:42:35 7 11:42:38 components once again without cables. And then now, in that recent slide, you know, having a foldable smartphone. 11:42:41 11:42:44 10 Those are all areas where we've tried to innovate over the 11:42:48 11 years. 11:42:48 12 Q. Have Galaxy -- Samsung's Galaxy phones received awards 11:42:54 13 and recognition? A. Yeah, in my time at Samsung, we've received a number of 11:42:55 14 11:42:58 15 awards. Just looking at the last Consumer Electronics Show which was in Vegas in January, I think, across our product 11:43:05 16 portfolio, we received over 40. 11:43:09 17 Q. Are those awards for innovation? 18 11:43:10 11:43:12 19 A. It depends, but on a number of products, yes. 11:43:15 20 Q. What is the Consumer Electronics Show? Can you explain 11:43:21 21 that to the jury? 11:43:22 22 A. Sure. So once a year a lot of vendors across multiple 11:43:25 23 industries get together in Vegas, and they actually will 11:43:29 24 either demonstrate new technology, new products, in some

cases demonstrations of products that don't quite exist

11:43:32 25

yet, so prototypes. And it's basically to sort of show the 11:43:35 1 world what's coming and what will eventually end up in 11:43:39 3 consumer's hands. 11:43:42 Q. And over the years, has Samsung Electronics received 11:43:43 awards for innovation in other Consumer Electronics Shows 11:43:46 for its Galaxy phones? 11:43:52 A. Yes. 11:43:54 7 Q. Do you have a general familiarity with the Galaxy 11:43:55 phones that are at issue in this case? 11:43:57 11:43:59 10 A. Yes, I've worked on some of them. 11 | Q. Before this case was filed, were you familiar with OLED 11:44:00 A. Yeah, OLED's -- it's actually been around since the 11:44:04 13 '80s. 11:44:10 14 11:44:10 15 Q. How long has Samsung Electronics been offering phones with OLED displays? 11:44:13 16 A. It's been over a decade. I think we started selling 11:44:14 17 OLED displays in -- around 2009. 18 11:44:20 Q. Before this case, were you familiar with touch sensor 11:44:22 19 11:44:27 20 technology, generally? A. Yes, absolutely. 11:44:27 21 11:44:29 22 Q. How long has Samsung Electronics been selling phones 11:44:33 23 with touch sensors? 11:44:34 24 A. So that's actually even longer. Touch sensors have

been around, you know, going back to, like, 2001. But

11:44:40 25

specific to this case with capacitive touch sensors, I want 11:44:43 1 to say it's 2008. 11:44:47 Q. Do you know how many different cell phone models 11:44:48 Samsung Electronics has made over the years? 11:44:52 Oh, over the years, hundreds, if not thousands. 11:44:53 5 Α. 11:44:56 Q. Why so many different ones? A. Well, unfortunately, there's no average consumer. I 11:44:58 7 mean, we basically try to address all of the needs that are 11:45:02 11:45:07 existing, and we make phones globally. So there's a number of things that have to get considered. So, as a result, 11:45:10 10 11:45:14 we've made a number of models over the years. 11 Q. How does Samsung Electronics America decide which 11:45:18 12 11:45:21 13 features of phones to market to consumers? A. So the phone itself is made up of hundreds of features 11:45:23 14 11:45:27 15 and functions, if not thousands. And it'd be next to impossible to talk about them all. 11:45:31 16 17 So we basically have to fit -- pick a few -- let's 11:45:32 just call them key attributes, and we will choose those for 11:45:36 18 a particular model or a particular price gear, and then, 11:45:40 19 11:45:44 20 you know, maybe what the target segment or target audience might be, and we'll combine all of that together to 11:45:49 21 11:45:51 22 determine these are what we want to talk about for this 11:45:54 23 particular product launch. 11:45:55 24 Q. Are there multiple components that are essential or necessary to have a working smartphone these days? 11:45:59 25

11:46:02 1 A. Oh, absolutely. 11:46:03 How do you decide which of those to focus on? Q. A. Well, it depends on sort of what the functionality that 11:46:06 3 we're trying to pitch, whether or not we're going to have a 11:46:11 differentiation story between a product we've already 11:46:14 5 11:46:17 launched and a new technology. So it varies based on a number of different factors. 11:46:22 7 Q. Has Samsung Electronics America ever focused marketing 11:46:23 8 11:46:28 on the transistor structure or layout in a display? A. No, not -- not while I've been there. I mean, 11:46:31 10 traditionally our marketing is done at a much higher level. 11:46:35 11 11:46:39 12 Q. Has Samsung Electronics America ever marketed the types of materials or the structure of a touch sensor used in its 11:46:43 13 11:46:46 14 phone? 11:46:46 A. Once again, not to my knowledge, no. 15 Q. Now, you have in front of you two physical exhibits. 11:46:48 You should have DTX-468 and DTX-469. 11:46:56 17 A. Yes, those numbers match. 11:47:03 18 Q. Can you -- they're in plastic bags? 11:47:05 19 11:47:09 20 MR. LERNER: With Your Honor's permission, can 21 Mr. Repice take them out one at a time from those --11:47:12 11:47:15 22 THE COURT: Certainly. 11:47:19 23 A. Okay. This is -- apologies. This is DTX-0468. 11:47:27 24 Q. (By Mr. Lerner) Can you explain to the jury what that

is?

11:47:31 25

```
1 A. Sure. This is one of our Galaxy products, and this is
11:47:31
           actually the GS8 phone.
11:47:34
        3 Q. The Galaxy S8?
11:47:37
            A. The Galaxy S8, sorry.
11:47:39
11:47:42
         5
           Q. That's okay.
11:47:43
                    And can you take out for the jury DTX-469?
            A. This is DTX-469, and this is actually the Galaxy S8
11:47:46
        8 | Plus.
11:48:00
            Q. Can you hold the two next to one another?
11:48:00
            A. I can.
11:48:02
        10
11:48:06
       11
                    THE COURT: Just make sure the right one goes in
11:48:09
       12 | the right bag with the numbers on it.
11:48:10
       13
                    THE WITNESS: Yes, sir. I've got a
11:48:13 14 | left/right-hand thing going on, so I should be okay.
11:48:17
       15
                    THE COURT: Go ahead, counsel.
                    MR. LERNER: Thank you, Your Honor.
11:48:18 16
            Q. (By Mr. Lerner) Do you understand from this case that
11:48:19
       17
           there are different touch sensors used between these two
11:48:21
       18
            different phones?
11:48:23 19
11:48:24 20
           A. Yes, there are.
11:48:24 21
            Q. From the user perspective, is there any difference in
11:48:28
       22
           the responsiveness of the touch sensing of those two
11:48:31 23 phones?
11:48:31 24
          A. No, there would not be.
11:48:32 25
           Q. Is there any difference from the user perspective, or
```

```
any apparent difference, in the curvature or the form
11:48:35
         1
            factor of those two phones?
11:48:39
            A. Other than the size, which is physically obvious, and
11:48:40
            the S8 Plus has a larger battery, they're basically the
11:48:45
            same.
11:48:49
         5
            Q. Is there any noticeable difference in the size of the
11:48:49
            borders of the phone?
11:48:52
        7
            A. They're both -- my fingers are probably in the way, but
11:48:53
         8
            they're both Infinity screens, which means they pretty much
11:48:59
        10
            go all the way to the edge, top and bottom, left to right.
11:49:04
            Q. And based on your research, your team's research, what
11:49:07
        11
11:49:08
        12
            leads people to select one or the other of those phones?
11:49:12
        13
            A. Well, that's actually a much more complicated question
            because it's going to depend on the individual.
11:49:15
        14
11:49:17
        15
                    Can I put these down?
11:49:19
            Q. You can, yes.
            A. Yes. So a typical -- let's say a typical consumer
11:49:22
        17
            purchase journey, it actually starts before you even get to
        18
11:49:29
11:49:31
        19
            the phone. One of the first questions I might ask myself
11:49:34
        20
            if I'm going to buy a phone is, what kind of operating
            system would I want to use, Android or iOS?
11:49:37
        21
        22
                    And the next thing I might go to is brand.
11:49:41
11:49:44
       23
            what type of phone would I like?
11:49:46
       24
                    Then I might look at the weight of the device.
            might see how it fits in my hand. You know, can I actually
11:49:47 25
```

```
1 | use it one-handed? Does my thumb go all the way across?
11:49:50
                    And then I might look at some of the functionality
11:49:53
            or the technology on the device. How many cameras does it
11:49:55
            have?
11:49:58
         4
                    I'll go, you know, look at possibly how big the
11:49:59
         5
            display is. You know, do I like to watch movies on a
11:50:01
            plane?
11:50:06
        7
11:50:06
                    You know, and then ultimately it comes down to the
        8
            question we all hate when we go to buy something, how much
11:50:09
            does it cost?
11:50:13
       10
            Q. And so why does Samsung -- why does Samsung Electronics
11:50:14
        11
            offer S8 and S8 Plus? Why not just one?
11:50:18
        12
            A. Well, like I said earlier, there's a number of
11:50:22
        13
            consumers out there, and, you know, these are just two
11:50:26
       14
11:50:29
       15
            models within our flagship offering which are our more
            high-end phones. We actually offer a number of other
11:50:33 16
            products. So, once again, we try to offer something for
11:50:36
       17
       18
            everyone.
11:50:38
            Q. How often does Samsung Electronics typically release
11:50:38
       19
11:50:42
       20
            new models of smartphones?
11:50:43
       21
            A. Typically, and more recently in my frame -- time frame,
       22
            we've been releasing pretty much throughout the year,
11:50:48
11:50:51
        23
            depending on the product year.
11:50:53 24
            Q. Why come out with new phones that frequently?
            A. Well, technology is changing in, you know, practically
11:50:56 25
```

```
daily or almost monthly nowadays. You know, we want to try
11:51:00
         1
            and stay on top of things, and we want to try and offer
11:51:06
            what's out there to the world.
11:51:08
         3
11:51:09
            Q. Thank you, Mr. Repice.
         4
                     MR. LERNER: Pass the witness.
11:51:11
         5
                    THE COURT: All right. Cross-examination?
11:51:12
         6
        7
                    MS. FAIR: Yes, Your Honor.
11:51:16
11:51:17
                     THE COURT: Ms. Fair, do you have any estimate of
         8
            the length of your cross-examination?
11:51:19
        9
                     MS. FAIR: 30 minutes, maybe.
11:51:22
        10
                     THE COURT: Well, then we'll cross-examine this
11:51:24
        11
            witness after lunch.
11:51:25
       12
                    MS. FAIR: Yes, Your Honor.
11:51:27
        13
                     THE COURT: We've got about eight minutes until
11:51:28
       14
11:51:30
       15
            noon, and the clerk's office has advised the Court that the
            lunch for the ladies and gentlemen of the jury is in the
11:51:35
       16
            jury room. So we won't delay that process.
11:51:38
       17
                     Ladies and gentlemen of the jury, we're going to
11:51:40
       18
            break for lunch. If you will, take your notebooks with you
11:51:43
       19
11:51:46
       20
            to the jury room. Follow all my instructions, including,
11:51:48
       21
            of course, not to discuss the case among yourselves. And
        22
            we'll be back as close to 1:00 o'clock as possible. And
11:51:51
11:51:56
       23
            we'll begin with the Plaintiff's cross-examination of
11:51:58 24
            Mr. Repice at that point.
11:51:59 25
                     The jury is excused for lunch at this time.
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COURT SECURITY OFFICER: All rise.
11:52:02
         1
11:52:07
         2
                     (Jury out.)
                     THE COURT: Counsel, I may need to take up with
11:52:08
         3
            you some of the matters we did not get to this morning. So
11:52:36
            I assume you will be in the vicinity of the courthouse or
11:52:41
         5
            close by. And if you're not close by, I will call you.
11:52:46
            But I expect to need to meet with you in chambers before we
11:52:50
        7
11:52:53
            reconvene at 1:00. But I'll let you know.
         8
                     In the meantime, we stand in recess for lunch.
11:52:56
         9
11:53:01
        10
                     COURT SECURITY OFFICER: All rise.
                     (Recess.)
11:53:02
        11
12:54:10
       12
                     (Jury out.)
12:54:11
        13
                     COURT SECURITY OFFICER: All rise.
12:54:11
       14
                     THE COURT: Be seated, please.
01:59:04
       15
                     Mr. Haslam?
01:59:14
       16
                     MR. HASLAM: Your Honor, there were several
            rulings that were made in chambers relating to the
01:59:16
       17
            testimony of Dr. Fontecchio, and I would like to put on the
01:59:19
        18
01:59:23
       19
            record those rulings to preserve it for the record for
01:59:26
       20
            whatever use that may be made.
01:59:30
       21
                     THE COURT: All right. To avoid any further
       22
            delays in getting the jury back in the courtroom, my
01:59:33
01:59:37
       23
            inclination would be to take those up at the end of the
01:59:40
       24
            day, get them on the record, and at least from my
            standpoint, since the Court's asking not to go into it
01:59:43 25
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01:59:46
            right now as a matter of time management, that that would
         1
01:59:49
           not rise to the level of any kind of waiver on your part.
                    MR. HASLAM: Thank you, Your Honor.
01:59:52
         3
                    THE COURT: Does Plaintiff have any objection to
01:59:53
         4
           that process?
01:59:55
        5
                    MR. FENSTER: No objection, Your Honor.
01:59:56
         6
        7
                    THE COURT: All right. We'll take them up at the
01:59:57
           end of the day. There will be no waiver.
01:59:59
02:00:03
                    MR. HASLAM: Thank you.
        9
                    THE COURT: Also, counsel, for the record, before
02:00:03
       10
           the trial started, I gave both parties clear instructions
02:00:05
        11
02:00:09
       12
           on the communicating of disputes through the
           meet-and-confer process with the Court. You were
02:00:13
       13
           instructed to advise the Court not later than 10:00 p.m.
02:00:16
       14
02:00:19
       15
            each evening of disputes that arose overnight that should
           be taken up with the Court the next day.
02:00:24
       16
02:00:27
       17
                    At no time during this trial have I gotten
            anything from you anywhere close to 10:00 o'clock.
02:00:30
       18
            gotten them at 2:00 in the morning, I've got them at 12:45
02:00:34
       19
       20
02:00:38
            in the morning. And especially with what we've had to deal
       21
            with today, they're of such a size and duration that
02:00:40
02:00:43
       22
            there's no way the Court could be as fully prepared as it
02:00:46 23
           needed to be because of the inexcusable delay in you
02:00:51
       24
           complying with my instructions.
02:00:53 25
                    I cannot get prepared to give you guidance if I
```

don't know what the problems are. And if I don't find out what they are at 10:00 p.m. and I don't find out about them at 2:00 in the morning -- and despite your assumptions to the contrary, I'm not by my computer at 2:00 in the morning looking for your email -- that puts the Court in the position where time is not available for the Court to consider and digest your disputes so that I can give you prompt guidance.

We've taken an hour beyond what I told the jury we would be back. I told the jury we would be back at 1:00. It's one minute after 2:00 p.m. I'm going to penalize both sides 30 minutes from your trial time to make up that hour, because I'm convinced that if I don't invoke a penalty, this conduct is not going to get better and may well get worse. It has been non-compliant the entire trial, and we still have a lot of trial to go.

So I expect you to comply with my instructions in this regard. And if I need to invoke and apply additional penalties later, I will do so.

But at this point, I am deducting 30 minutes of trial time from each side as a penalty for your continued failure to comply with my instructions during the pre-trial conference and in advance of this trial with regard to communicating to the Court disputes that have not been resolved through the meet-and-confer process between the

02:00:56 1 02:00:58 02:01:02 3 02:01:06 02:01:10 5 02:01:13 02:01:20 7 02:01:24 8

02:01:24 02:01:29 10 02:01:33 11 02:01:35 12 02:01:38 13 02:01:41 14 02:01:44 15 02:01:49 16

02:01:50 17 02:01:52 18 02:01:56 19

02:01:58

21 02:02:02 02:02:06 22 02:02:09 23

20

24

02:02:16 25

02:02:12

```
parties and which require the Court's understanding,
02:02:18
        1
           attention, and guidance, much of which we have, as I say,
02:02:22
           just spent an extra hour in my chambers trying to go
02:02:27
02:02:31
           through.
                    And as a part of that, Mr. Haslam, some of those
02:02:31
        5
02:02:34
           rulings did not go the way you wanted them to, and you want
           to put those on the record. We'll do that at the end of
02:02:37
           the day. That's fine.
02:02:40
                    All right. Ms. Fair, are you going to
02:02:41
02:02:43 10 | cross-examine this witness?
                   MS. FAIR: Yes, Your Honor.
02:02:45 11
                    THE COURT: Why don't you go to the podium and
02:02:46 12
While she's doing that, let's bring in the jury,
02:02:49 14
02:02:53 15 please.
02:02:53 16
                   MS. FAIR: Your Honor, may I provide the binder --
02:02:57 17
                    THE COURT: You can pass those out while the jury
       18 | is being brought in.
02:02:59
                    MS. FAIR: I've given one to opposing counsel
02:03:01 19
02:03:03 20
           already. I want to make sure the witness has one.
02:03:08 21
                    THE COURT: Let's bring in the jury, Mr. Johnston.
02:03:13 22
                    COURT SECURITY OFFICER: All rise.
02:03:29 23
                    (Jury in.)
02:03:30 24
                    THE COURT: Ladies and gentlemen, welcome back.
02:03:33 25 Please have a seat.
```

02:03:35	1	I apologize. I told you we'd reconvene at
02:03:40	2	1:00 o'clock. It's now 2:00 o'clock. I've had issues I
02:03:43	3	had to deal with counsel on that I did not anticipate would
02:03:47	4	take this long. But we are glad to have you back with us,
02:03:50	5	and we'll proceed with the Plaintiff's cross-examination of
02:03:53	6	Defendants' first witness, Mr. Repice.
02:03:55	7	Ms. Fair, you may proceed with cross-examination.
02:03:59	8	MS. FAIR: Thank you, Your Honor.
02:03:59	9	<u>CROSS-EXAMINATION</u>
02:03:59	10	BY MS. FAIR:
02:03:59	11	Q. Mr. Repice, we've met before, right?
02:04:02	12	A. Yes, we have.
02:04:03	13	Q. Mr. Repice, I know that you've had to step out of the
02:04:07	14	courtroom periodically when the courtroom has been sealed
02:04:11	15	for confidential information.
02:04:13	16	Are you aware that there has been some discussion
02:04:15	17	about teardowns that Solas did before this lawsuit?
02:04:19	18	A. Only in brief mentioning. I can't be here for any of
02:04:24	19	the SDC discussions, so I haven't heard any testimony.
02:04:27	20	Q. So I'll represent to you that it's been insinuated that
02:04:32	21	Solas has done teardowns that haven't been looked at by
02:04:36	22	Solas's expert, and there's been some concern about where
02:04:40	23	those teardown images are.
02:04:41	24	You understand in a lawsuit, there is a discovery
02:04:45	25	process, right?

```
A. Yes, ma'am.
02:04:47
         1
               And each side produces documents that are relevant to
02:04:48
           the case, right?
02:04:53
         3
02:04:53
           A. I'd like to think so, yes.
            Q. Would it surprise you if Solas produced over 300 images
02:04:55
         5
02:05:02
            of teardowns that were done of the accused Samsung phones
            in this case?
        7
02:05:05
02:05:07
         8
                    MR. LERNER: Objection, Your Honor.
02:05:08
                    THE COURT: State your objection.
         9
02:05:10
       10
                    MR. LERNER: Calls for speculation.
02:05:12
        11
                    MS. FAIR: Your Honor, may I respond?
02:05:14
       12
                    THE COURT: You may respond.
02:05:15
       13
                    MS. FAIR: This is the corporate representative
            for two of the Defendants in this case, and I want to ask
02:05:16
       14
02:05:18
       15
           him about what he knows about the discovery that's been
           produced in this lawsuit. His company knows what's been
02:05:21
       16
           produced. He is the representative.
02:05:28
       17
                    THE COURT: I'm going to overrule the objection.
02:05:30
       18
02:05:32
       19
            Q. (By Ms. Fair) So, Mr. Repice, would it surprise you to
02:05:35
       20
            find out that Samsung has over 300 images from the
            teardowns that Solas did of the Samsung phones before this
02:05:39
       21
02:05:42
       22
            lawsuit was filed?
02:05:43
       23
           A. So I can't attest for the amount of teardown documents,
02:05:52
       24
           but would it be surprising that there are some? No. But I
           don't know how many there are.
02:05:56 25
```

- Q. Do you know who Mr. Credelle is? 02:05:57 1
- I believe he was your technical expert. 02:05:58 Α.
- 02:06:01 Q. And you know that Mr. Credelle, as part of the 3
- discovery process, was provided confidential technical 02:06:05
- information from Samsung Display Company, right? 02:06:09
- 02:06:13 I understand that to be the case, yes.
- Q. And Mr. Credelle relied on the confidential technical 02:06:15 7
- information produced by Samsung Display in this case, 02:06:20
- 02:06:24 right?
- A. I'd have to take your word for it. I was out of the 02:06:24 10
- 02:06:27 courtroom for most of his testimony. 11
- Q. Would it surprise you if your own experts relied on the 02:06:28 12
- confidential information, the technical information, that 02:06:33 13
- Samsung Display produced in this case? 02:06:37 14
- I would assume that both sides relied on information 02:06:39 15
- from Samsung Display. I'm just not authorized to see it. 02:06:42
- 02:06:46 Q. Your experts, there are two of them, right? 17
- A. Yes, sir -- I'm so sorry. Yes, ma'am. 02:06:50 18
- 02:06:52 19 Q. It's okay.
- 02:06:53 20 And neither of those experts relied on teardowns
- that they had done for this case, right? 02:06:59 21
- 02:07:01 22 A. Once again, I'm not in a position to answer that
- 02:07:05 23 because the teardowns are specific to SDC, which is
- 02:07:08 24 documents I don't have access to. I'm not allowed to see
- any of the design documentation specific to the display. 02:07:12 25

Q. You would be able to see teardowns that your experts 02:07:15 1 02:07:19 would have done in this case had they done them, right? A. To be honest, I'm not sure, based on the rules of 02:07:22 3 confidentiality and proprietary. If the teardowns include 02:07:26 proprietary information specific to SDC, I would not be 02:07:33 02:07:36 privy to that information. Q. And so you wouldn't find it unusual or you wouldn't be 02:07:37 7 critical of your own experts for having relied on the 02:07:41 02:07:43 confidential technical information that was provided in this case, right? 02:07:45 10 02:07:46 A. I'm not sure I follow the question. You're asking me 11 about documentations that I haven't seen and I'm not 02:07:50 12 02:07:55 13 authorized to see. I don't know how I can provide an 02:07:58 14 answer. 02:07:58 15 Q. Are you confident in the opinions that you believe your technical experts are going to offer in this case? 02:08:00 16 02:08:02 A. Yes. I believe that following their analysis based on 17 the documentation, that we do not believe we infringe. 02:08:05 18 Q. And if that analysis doesn't include teardowns, you're 02:08:08 19 20 02:08:17 not saying that you would have to have these teardowns to 21 know whether or not there's infringement? 02:08:21 02:08:22 22 A. I didn't participate in the technical evaluations. 02:08:26 23 Teardown may or may not be possible. Once again, you're 02:08:29 24 asking me about technology I can't see. So being an engineer and wanting to have data and numbers, it's hard 02:08:31 25

```
for me to assess one way or the other without actually
02:08:34
         1
02:08:37
           being able to see the information you're asking.
02:08:39
            Q. If Samsung has a teardown that demonstrates
         3
            non-infringement, we would expect to see it, right?
02:08:46
                    MR. LERNER: Objection to form, Your Honor.
02:08:49
         5
02:08:52
            is trying to shift the burden of proof. This is an
        7
            improper line of questions.
02:08:54
                    THE COURT: I'm going to overrule that objection.
02:08:58
         8
02:09:00
                    However, Ms. Fair, there is an order in limine
            from the Court with regard to discovery issues. And I am
02:09:04
        10
02:09:08
        11
            concerned that this line of questioning may cross that line
            if it continues much further.
02:09:10
        12
02:09:13
        13
                    Are you in a position to move on, or are you
            intending to press this issue further?
02:09:16
       14
02:09:18
       15
                    MS. FAIR: Your Honor, I just wanted to -- I made
            no suggestion about inappropriate conduct in the discovery
02:09:22
        16
            process. The suggestion is, as was agreed in the limine,
02:09:26
       17
02:09:30
       18
            that we can comment on the lack of evidence, and that's my
02:09:33
       19
            only point.
02:09:40
       20
                    THE COURT: All right. Well, I'll overrule the
            objection. As I say, to the extent this witness has
02:09:43
       21
02:09:46
        22
            knowledge and can speak for his corporate client on these
02:09:49
       23
            issues, that's fine. To the extent he doesn't know, he
            doesn't know.
02:09:52
       24
02:09:52 25
                   MS. FAIR: Yes, Your Honor.
```

THE COURT: Let's proceed. 02:09:53 1 Q. (By Ms. Fair) If Samsung's experts had done teardowns 02:09:56 and had a teardown that showed non-infringement, you would 02:09:59 expect those experts to present that to this jury, right? 02:10:04 A. If the documents would have existed, I would have 02:10:07 02:10:10 expected that. But I don't know if they exist, once again because I have no access to the SDC information. 02:10:14 Q. You have a couple of phones in front of you? 02:10:18 8 02:10:20 A. Actually, I don't. I gave them to the court officer, and he gave them back to our legal team. They're over 02:10:26 10 02:10:29 11 | there. Q. Do you remember what phones you had? 02:10:29 12 13 A. Yes. I can't give you the DTX numbers, but it was the 02:10:30 Galaxy S8 and Galaxy S8 Plus. 02:10:34 14 02:10:38 15 MS. FAIR: Mr. Wietholter, can we pull up the 02:10:42 16 demonstrative, please? Q. (By Ms. Fair) These look like pictures of those 02:10:44 17 phones? 02:10:47 18 A. Yes, ma'am. 02:10:47 19 02:10:48 20 Q. And they were released in the same year, right? A. Yes, that's correct. 02:10:51 21 02:10:52 22 Q. And you showed the jury that they have the same curved 02:10:56 23 | display, right? 02:10:56 24 A. Yes. 02:10:57 25 Q. That was the point you were making?

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A. I believe what I was saying is that one -- the S8 Plus
02:10:58
        1
           was bigger and had a larger battery, but fundamentally
02:11:03
        3
           they're -- outside of that, they're pretty much the same.
02:11:06
            Q. And you're saying that one of them has an ITO sensor
02:11:09
           and one has a metal mesh?
02:11:13
02:11:14
           A. Actually, I didn't testify to that. I said that one
           is -- one is alleged of potential infringing and one is
02:11:19
02:11:23
           not.
        8
           Q. Okay. If we put these on a timeline, you remember what
02:11:23
02:11:29 10
           year these were released?
           A. If I had to guess, I would say 2017. But I'm not a
02:11:31
        11
02:11:38 12
           hundred percent sure.
02:11:41
       13
                    Okay. Good guess.
02:11:43 14 | Q. So if we put these on a timeline, there were a series
02:11:47
       15
           of phones that came before these, right?
02:11:50 16 A. Yes, ma'am.
           Q. Those phones look familiar?
02:11:52 17
02:11:53 18 A. Yeah.
02:11:54 19 Q. Note --
02:11:56 20 A. Yes.
02:11:56 21 Q. -- 3, Note 4, S6.
02:12:02 22 A.
              I've worked on a few, yes.
02:12:04 23 Q. And then there's been phones released after the S8 and
02:12:08 24 | the S8 Plus, right?
02:12:09 25
           A. That's also correct.
```

1 | Q. Those phones look familiar? 02:12:10 02:12:12 A. Yes, they also do. Q. You generally agree this is the timeline of releases of 02:12:13 3 phones, some of the flagship phones that Samsung has, 02:12:16 right? 02:12:20 02:12:20 A. It depends on how you're laying this out. Typically, the Galaxy or the S Series lines would launch in 02:12:25 7 02:12:31 conjunction with each other. So having the S10 shown after 02:12:34 the -- sorry, the S10 Plus shown after the S10 is technically inaccurate in terms of the timeline that's 02:12:39 10 02:12:43 represented here. 11 12 But, in general, we would have an S Series 02:12:44 02:12:47 13 launched, let's say, in the first quarter of the year. And then a Note Series launch would be later in, say, Q3 of 02:12:50 14 02:12:55 15 that same year. Q. Do you know why these are separated in two groups? 02:12:56 16 A. If I had to guess, I would say that -- well, no, that 02:12:59 17 can't be it, because some of the curved models are on top, 02:13:09 18 as well. 02:13:14 19 20 02:13:15 THE COURT: Why don't we do this, Mr. Repice, why don't you say: Yes, I know, or, no, I don't know? 02:13:17 21 02:13:21 22 A. No, I don't know. 02:13:22 23 Q. (By Ms. Fair) The ones on the top are not accused of 02:13:25 24 infringing the '311 patent, and the ones on the bottom are accused of infringing the '311 patent. That's the touch 02:13:28 25

- sensor patent, right? 02:13:33 1 02:13:33 A. Yes. 2 02:13:34 Q. Does it look like Samsung transitioned from one touch 3 sensor to another? 02:13:40 A. Well, it looks like when we went to the S8, which is on 02:13:40 02:13:54 the line, the two models launched at the same time. So it looks like one launched with one implementation and another 7 02:13:59 launched with a different implementation. And then it 02:14:03 8 02:14:05 looks like some of the models after that used a similar implementation. But without having access to detailed 02:14:08 10 02:14:12 specs, I can't attest to more than that. 11 Q. Did you know before this case that these 02:14:16 12 phones' sensors went from ITO to metal mesh around the 2017 02:14:19 13 time period? 02:14:23 14 02:14:24 15 A. Prior to this case, no. Q. So you at SEA, Samsung Electronics, the cell phone 02:14:25 16 company, you're not involved in what sensor -- touch sensor 02:14:31 17 goes into the phones, right? 02:14:36 18 A. I think when I testified earlier, I indicated that the 02:14:37 19 20 02:14:40 phones are actually produced by SEC and then they are sold by SEA. And I actually work for SEA. So I'm not directly 02:14:44 21 02:14:47 22 involved with component selection. 02:14:49 23 Q. You're here as the representative for both SEC and SEA, 02:14:56 24 right?
- 02:14:56 25 A. That's correct.

1 | Q. The two companies involved with making and selling the 02:14:56 02:15:00 cell phones, right? A. Yes, that's correct. 02:15:00 02:15:01 Q. And the decision of what sensor goes into the display is made by SDC, right? 02:15:05 02:15:07 A. I'm sorry. You have to repeat the question because I think you had one of the acronyms incorrect. 02:15:11 Q. The decision of which sensor, which touch sensor goes 02:15:13 8 02:15:19 into the display is made by SDC, Samsung Display Company? A. So the display is purchased by SEC. If the touch 02:15:24 10 02:15:30 sensor is included in the display as a complete offering, 11 then it would be made by SEC. But once again, I -- you'd 02:15:34 12 02:15:37 13 have to know the underlying details there. Q. Do you know Minuk Kim? 02:15:39 14 02:15:46 15 A. No, ma'am, I can't say that I do. Q. That was a 30(b)(6) witness in this case on behalf of 02:15:48 16 SEC, the company that you're sitting on the stand 02:15:51 17 testifying for as a corporate representative. 02:15:54 18 A. Samsung has over 300,000 employees. I don't know all 02:15:57 19 02:16:03 20 of them. 02:16:04 21 Q. Would it surprise --02:16:06 22 THE COURT: Let's ask questions rather than make 02:16:09 23 statements to the witness. 02:16:09 24 MS. FAIR: Yes, Your Honor.

THE COURT: He said he didn't know. And then you

02:16:10 25

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told him who the person was. You're not here to make
02:16:11
         1
02:16:13
           statements. You're here to ask questions.
         2
02:16:15
                    MS. FAIR: Yes, Your Honor.
         3
                    THE COURT: And in this context they may be
02:16:16
         4
            leading questions, but they still need to be questions.
02:16:20
02:16:23
                (By Ms. Fair) Would it surprise you if the corporate
            representative testifying for SEC in this case said that
02:16:29
        7
02:16:34
            SDC is the company that selects the touch sensor that goes
02:16:39
            into the display module?
            A. I think I already answered your first question when I
02:16:40
        10
02:16:43
        11
            said it depends on the selection of the module whether or
           not the sensor is included in the display. It's not part
02:16:48
        12
02:16:50
       13
            of my day-to-day responsibilities in my regular job. I'm
            trying to answer as best as I can to my personal knowledge.
02:16:56
       14
02:17:00
       15
            Q. We were told in opening -- you were here, right?
            A. Yes, for the opening, I was.
02:17:04
       17
            Q. And we were told that Samsung came out with a new touch
02:17:05
           sensor in 2017. Did you hear that?
02:17:09
       18
02:17:11
        19
           A. Yes, ma'am, I did.
02:17:12
       20
            Q. Does that look consistent with this timeline as to what
        21
           happened with the touch sensors in Samsung's phones?
02:17:16
02:17:19
        22
                I would say it's consistent with the timeline, but I
02:17:23
       23
           don't know details specific to the touch sensor.
02:17:24
       24
            Q. Samsung is, as you testified on direct and as we've
           heard, an innovative company, cutting edge, right?
02:17:28 25
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A. Yes, I believe I said that.
02:17:32
         1
           Q. The next big thing, I think, is the phrase you used on
02:17:34
           your direct, right?
02:17:42
           A. It's been in a few of our commercials, yes.
02:17:43
            Q. And, in fact, you've told this jury that the reason
02:17:46
         5
02:17:49
           that SEC and SEA source their displays from Samsung Display
           is because Samsung Display is so advanced in their
02:17:54
        7
           technology, right?
02:17:57
           A. I said they were an innovative display component
02:17:58
02:18:02
        10
           manufacturer, yes.
02:18:04
            Q. So you would expect when they switched touch sensors,
        11
           that they moved to a better touch sensor, right?
02:18:08
       12
           A. I would assume that they moved to a different touch
02:18:10
       13
           sensor. You'd have to quantify "better." Remember, the
02:18:13 14
02:18:17
       15
           touch sensor is actually being integrated into a full
           product. Until it gets integrated into a phone --
02:18:19
02:18:22
       17
                    THE COURT: Mr. Repice, you're way beyond the
           questions that she asked.
02:18:25
       18
                    THE WITNESS: Okay. I'm sorry, Your Honor.
02:18:26 19
02:18:27 20
                    THE COURT: You need to limit your answers to the
02:18:31 21
           questions that she asks. Okay.
02:18:32
       22
                      THE WITNESS: Yes, sir.
02:18:33 23
                    THE COURT: Let's proceed, Ms. Fair.
02:18:34 24
            Q. (By Ms. Fair) So you think Samsung Display would
02:18:37 25
            change sensors to a worse touch sensor?
```

1 A. No, that's not what I said. I said it would be 02:18:38 02:18:41 different. I just said I couldn't quantify "better" 3 without results. 02:18:44 Q. When you make changes in the phones that SEA sells, do 02:18:45 you generally make changes to make the phone better? 02:18:48 02:18:50 A. We attempt to, and sometimes it works, and sometimes it doesn't. 02:18:53 7 02:18:54 THE WITNESS: Am I allowed to give an example, 8 02:18:57 9 | Your Honor? 02:18:57 10 THE COURT: Not unless she asks you to. 02:18:59 THE WITNESS: Okay. Thank you. 11 Q. (By Ms. Fair) And when it works, you continue with 02:19:00 12 what choice you made to make the phone better, right? 02:19:02 13 A. Once again, it will depend on the technology at the 02:19:04 14 02:19:09 15 time and where we're going. Q. So you're saying if you make a change to your phone and 02:19:10 16 it doesn't make the phone better, you're going to stick 02:19:13 17 with that change anyway? 02:19:15 18 A. What I'm saying is, when you make an evaluation of 02:19:16 19 20 02:19:20 choosing technology, you're making the evaluation at a specific point in time based on the information that you 02:19:25 21 02:19:27 22 have at your disposal. If the technology hasn't gotten 02:19:30 23 better, you may have to keep your current choice. 02:19:33 24 Q. And when the technology options get better, you switch to the better option? 02:19:36 25

A. Potentially. When you choose new technology, you also 02:19:37 1 have to spend money. You have to integrate it. You have 02:19:40 to actually develop incorporations of the new feature. You 02:19:44 have to spend non-recurring engineering costs. So it's all 02:19:48 going to depend on the time. You can't make a decision 02:19:52 02:19:55 without knowing all the parameters. MS. FAIR: Objection, nonresponsive. 7 02:19:56 02:19:59 THE COURT: Sustained. 8 02:20:03 The question was: And when the technology options 9 get better, you switch to the better option? 02:20:06 10 02:20:08 11 You answered: Potentially. And then without prompting, you started to explain 02:20:10 12 02:20:13 13 to everybody in the room what you mean by the word "potentially" and give examples for it. That is -- that is 02:20:16 14 02:20:20 15 not within the scope of what the question calls for. You answered the question when you said the first word, and I'm 02:20:23 16 going to strike everything of your answer, except 02:20:26 17 "potentially." 02:20:29 18 I'm going to remind you again, Mr. Repice, to 02:20:30 19 02:20:33 20 limit your answers to the questions asked. 21 Mr. Lerner is going to get another chance to go to 02:20:35 02:20:37 22 that same podium and ask you any other questions he wants 02:20:41 23 to. So don't feel you have to correct everything as you 02:20:44 24 sit there on the stand. 02:20:45 25 Your job is not to correct the questions. Your

```
job is to answer the questions within the scope of the way
02:20:49
         1
            they're presented. And if there's correction that's
02:20:51
            needed, if there's revisiting that's needed, if there are
02:20:54
         3
            examples or further explanation that's needed, that's
02:20:57
            Mr. Lerner's job, and he'll call for that when he goes back
02:21:01
02:21:04
            to the podium. That's the way this process works.
         7
                    Is that clear?
02:21:07
02:21:09
         8
                    THE WITNESS: Yes, sir.
                    THE COURT: Okay. Let's go forward on that basis.
02:21:09
         9
                    MS. FAIR: Mr. Wietholter, can we please have
02:21:14
       10
           Slide 33, I believe it is, from the opening?
02:21:16
       11
       12
                    MR. LERNER: Objection, Your Honor. This is a
02:21:22
02:21:24
       13
            Samsung Display confidential document. As Mr. Repice
            explained, he left the room because he's not entitled to
02:21:27
       14
02:21:30
       15
           access it.
                    MS. FAIR: Your Honor, may I respond?
02:21:31
       16
                    THE COURT: Yes.
02:21:32
       17
                    MR. LERNER: Put the slide down, please --
02:21:33
       18
                    THE COURT: The slide is down.
02:21:35
       19
02:21:37
       20
                    MS. FAIR: What we put on the screen was the
            opening slide that was shown in open court intentionally
02:21:38
       21
02:21:42
       22
            because we know that Mr. Repice cannot see Samsung
02:21:45 23
            Display's confidential information.
02:21:47
       24
                    THE COURT: If it was shown during opening
02:21:50 25
           statements in open court, then it's fair game. If it's
```

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1 confidential and marked confidential and has been protected
02:21:53
02:21:57
           through the sealing process in its earlier use before the
            jury, then it certainly can't be presented in open court
02:22:01
           right now.
02:22:05
                    I will have to rely on you all to look at it and
02:22:06
         5
02:22:09
            tell me, is this the slide that was used in opening or not?
            If it is, then it's fair game.
02:22:12
        7
02:22:15
                    Do you have any basis to tell me this is not the
         8
           slide used in opening, Mr. Lerner?
02:22:17
                    MR. LERNER: I don't, Your Honor. It also lacks
02:22:19
       10
02:22:21
        11 | foundation because the witness --
02:22:23 12
                    THE COURT: I didn't ask you if you had another
02:22:24 13
           objection. I'll get to that in a minute.
02:22:26 14
                    MR. LERNER: Thank you.
02:22:27
       15
                    THE COURT: Do you have a hard copy of it,
02:22:29 16 Ms. Fair? Of the slide?
                    MS. FAIR: Yes, sir.
02:22:30
       17
                    THE COURT: You show it to Mr. Lerner, and then
02:22:31
       18
           we'll determine if there's any dispute about whether it was
02:22:34
       19
02:22:37
       20
           used in opening statements.
02:22:51
       21
                    MR. LERNER: I'll take your representation if
02:22:53 22 that's the case.
02:22:53 23
                    THE COURT: All right. It appears that we're now
02:22:56 24 | clear that it was used in opening statements; therefore,
           it's properly used with cross-examination of this witness.
02:22:58 25
```

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02:23:00
         1
                    Once she puts it up and purports to use it, if you
            have other objections, you can make them at that time,
02:23:04
            Mr. Lerner.
02:23:06
         3
02:23:07
                    MR. LERNER: Thank you.
                    THE COURT: Let's proceed, Ms. Fair.
02:23:08
         5
02:23:10
                    MS. FAIR: Thank you, Your Honor.
         6
               (By Ms. Fair) You were here for opening statements,
02:23:11
02:23:13
            right, Mr. Repice?
            A. Yes, ma'am. Yes, I was.
02:23:14
        10
            Q. And you saw this slide in opening statements, right?
02:23:16
               I believe so, yes.
02:23:19
            Α.
02:23:19
       12
            Q. And one of the things you were just telling us about
02:23:23
       13
            when you switched technology, when you make a change in a
            product, that you might consider would be costs, right?
02:23:27
       14
02:23:31
            A. I said that is one of the possible things to consider,
       15
02:23:35 16
            yes.
            Q. And you told this jury on direct that Samsung
02:23:35
       17
            Electronics America, when it's marketing the phone, doesn't
02:23:43
       18
02:23:45
       19
            market the transistor structure of the display, right?
02:23:48
       20
            A. Not typically, but I was speaking for SEA at the time.
02:23:52
       21
            The question was asked in my capacity for the U.S. market,
       22
            which would be SEA.
02:23:55
02:23:56 23
            Q. And when you are marketing phones for SEA, you do
02:24:01
       24
            market that you have a better display, right?
02:24:04 25
            A. A display is one of the components that we market, yes.
```

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1 Q. Samsung tells its customers, we make better pictures,
02:24:08
           better graphics, right?
02:24:12
           A. That's part of the story.
02:24:14
           Q. You have better colors on your screen, right?
02:24:16
           A. Once again, that's -- display is part of that
02:24:21
        5
02:24:25
           component. There's underlying software to generate those
           photos. But display is how it's seen.
02:24:27
02:24:30
           Q. And that's what you market to your customers?
        8
02:24:32
           A. We also market the size of the display, as well, once
       10
02:24:37
           again, and the brightness and the resolution.
            Q. And the shape of the display, right?
02:24:39
        11
02:24:40
       12
           A. At times, yes.
                    MS. FAIR: Mr. Wietholter, can we have the opening
02:24:42
       13
       14 | slide that shows the benefits of the '338 patent?
02:24:45
02:24:52
       15
           Q. (By Ms. Fair) You understand in this case, the
           benefits that Solas identifies for the '338 patent are
02:24:54 16
           accurate brightness, uniform display, greater contrast
02:25:03
       17
           ratio, right?
02:25:08
       18
           A. I understand that's your -- the position you're
02:25:08 19
02:25:13 20
            claiming, but I've seen no quantitative data to prove these
           benefits. I don't have the results.
02:25:18 21
02:25:19 22
            Q. You're not allowed to see Samsung Display's
02:25:22 23
           confidential information --
02:25:23 24
                    THE COURT: Wait a minute.
                   Mr. Repice, you obviously didn't get my
02:25:24 25
```

02:25:27	1	instruction a few minutes ago about going beyond the scope
02:25:30	2	of the question that was asked.
02:25:31	3	She asked you: Did you know that these were the
02:25:35	4	benefits claim by Solas?
02:25:37	5	And you said: Yes, I know you claimed those,
02:25:40	6	but
02:25:40	7	And then you started to explain how you didn't
02:25:42	8	know whether that was right or not.
02:25:44	9	She didn't ask you to go beyond the answer of,
02:25:48	10	were you aware those were the benefits claimed by Solas.
02:25:51	11	You're injecting information and answers that are
02:25:54	12	not called for, and that's not proper in a court of law.
02:25:58	13	It may be perfectly proper in a laboratory where engineers
02:26:02	14	are working on a scientific problem, but that is not the
02:26:04	15	way a trial before a jury in a United States District
02:26:09	16	Court, consistent with the Federal Rules of Civil
02:26:11	17	Procedure, is to be conducted.
02:26:13	18	And that's part of why I'm sitting up here, to
02:26:16	19	make sure it's done the way the Rules of Federal of
02:26:19	20	Civil Procedure require.
02:26:21	21	And so I'm telling you again, sir, limit your
02:26:23	22	answers to the scope of the question asked. Your counsel
02:26:26	23	is going to get a chance to reexplore any and all these
02:26:29	24	issues he thinks necessary. But if you continue to be
02:26:33	25	non-responsive, I'll have to assume you're intentionally

```
disregarding my instruction.
02:26:36
         1
02:26:37
                     So having given it to you twice and having made it
         2
            as simple and as straightforward as I can make it, I'll
02:26:40
         3
            trust that you don't do it in the future. If you continue
02:26:43
            to, I'll have to assume it's an intentional disregarding of
02:26:46
02:26:49
            my instructions to you.
         7
                     Do you understand me, sir?
02:26:51
02:26:52
         8
                     THE WITNESS: Yes, sir.
02:26:53
                     THE COURT: Okay.
         9
02:26:54
        10
                     THE WITNESS:
                                   Sorry.
02:26:54
                     THE COURT: It's not that hard. Just answer the
       11
02:26:56
       12
            question and stop.
02:26:57
        13
                     THE WITNESS: I'm sorry.
                     THE COURT: All right. Counsel, let's go forward.
02:26:58
       14
02:27:00
       15
                    MS. FAIR: Thank you, Your Honor.
                     Mr. Wietholter, can we see the benefits of the
02:27:01
       16
            '450 patent? The slide that was shown in opening.
02:27:04
       17
02:27:08
       18
                (By Ms. Fair) You saw this slide, too, right,
02:27:11
       19
            Mr. Repice?
02:27:11
       20
            A. Yes, ma'am.
02:27:11
        21
            Q. And you understand the benefits that Solas is claiming
02:27:17
       22
            the '450 patent offers are brighter display, a longer
02:27:20
       23
            display lifetime, and avoiding performance degradation for
02:27:25 24
            light-hitting transistor, right?
            A. Yes, I understand those are the benefits that Solas is
02:27:28 25
```

- 02:27:31 1 claiming.
- Q. And I understand that Samsung Electronics America -- I 02:27:33
- haven't seen y'all marketing metal mesh touch sensors. 02:27:36
- Sound right? 02:27:40
- A. No, ma'am, I don't believe we do. 02:27:42 5
- 02:27:44 Q. But you do market having an Infinity Display, right?
- A. That's the marketing name for the display we're 02:27:48 7
- 02:27:52 currently using, yes. 8
- MS. FAIR: Mr. Wietholter, can we go back to the 02:27:55
- timeline with the phones, please? 02:27:57 10
- 02:28:00 Q. (By Ms. Fair) The display you're currently using that 11
- you've been using for a while, right? 02:28:03 12
- 02:28:05 13 A. Yes.
- Q. And you understand in this case, more importantly, the 02:28:05 14
- 02:28:13 15 advantage that Solas is talking about, that the touch
- sensor patent offers, is cost savings provided to Samsung 02:28:17 16
- Display and the manufacturer, right? 02:28:21 17
- A. I understand that's the claim you're making, yes. 02:28:24 18
- Q. We're not telling this jury that the use -- the 02:28:26 19
- 20 02:28:32 infringement of Samsung is based on marketing of a metal
- 21 02:28:37 mesh touch sensor to consumers, right?
- 02:28:38 22 A. No, I don't believe it is.
- Q. In the S10 lineup of phones -- you see three S10s on 02:28:40 23
- 02:29:01 24 | this screen?
- A. Yes, ma'am, I do. 02:29:02 25

- Q. There's another S10 phone, right? 02:29:03 1 A. There's an S10e that's not listed. 02:29:05 Q. And it was released around the same time as these S10 02:29:07 02:29:11 4 phones? A. It was released at the same time as the S10 and the S10 02:29:11 02:29:16 Plus. I believe the S10 5G was launched a little later. Q. This look like the S10e phone on the screen right now? 02:29:21 7 02:29:25 A. Yes, it does. 8 02:29:37 Q. Do you know whether the S10e -- well, let me ask this: 02:29:43 10 If someone were to suggest that the S10e has a curved 02:29:49 display just like the other phones that we saw, that are on 11 the bottom half of this slide, would that be accurate? 02:29:54 12 A. No, it would not be. 02:29:56 13 Q. The S10e has a flat screen, right? 02:29:58 14 02:30:05 15 A. Yes, that's correct. Q. And you understand that the '311 patent, the touch 02:30:07 16 sensor patent that we're talking about here, Solas's 02:30:11 17
- allegations relate to a curved display, right? 02:30:17 18 02:30:20 19 A. I understand that's part of the claims in the patent, 02:30:22 20 yes. 02:30:23 21 Q. That's right. And the other part is using a metal mesh
- 02:30:26 22 touch sensor, right?
- 02:30:33 24 MS. FAIR: Mr. Wietholter, can we go to the slide 02:30:36 25 from opening that shows the damages calculation?

A. I believe from the opening, yes.

02:30:26 23

Q. (By Ms. Fair) On the left, this column here, the 02:30:49 1 02:30:57 amount -- the \$1 amounts that we see there are not for sales of the phone itself, right? 02:31:03 A. From what I understand during the brief part I could 02:31:04 attend, that's correct. It was for the display sales. 02:31:09 02:31:11 So you understand that Solas is seeking a royalty on the display modules of the phones, right? 02:31:17 7 A. Yes, I understand that. 02:31:20 8 Q. And so the marketing that Samsung Electronics has to 02:31:22 its customers about -- distancing yourself from the 02:31:26 10 02:31:32 marketing of metal mesh or the structure of transistors, 11 we're not talking about the phones when we're talking about 02:31:36 12 02:31:39 13 the royalty, are we? A. I believe in the slides that Mr. Dell presented, he was 02:31:40 14 02:31:44 15 speaking to the displays. Q. The royalty that we're seeking here is based off of 02:31:46 16 revenues from the OLED display modules, right? 02:31:52 17 A. That's my understanding, yes. 02:31:55 18 Q. Would you expect the \$3.54 billion to go up or down if 02:31:56 19 20 02:32:02 we were to use the actual cell phone cost instead of the 21 display? 02:32:08 02:32:08 22 A. I'm sorry, can you repeat the question? 02:32:10 23 Q. For each of these display modules that were sold of the 02:32:16 24 \$3.5 billion, would you expect that amount to go up or down

if we would have instead used the entire phone?

02:32:20 25

```
MR. LERNER: Objection, relevance.
02:32:24
         1
02:32:26
                    THE COURT: Overruled.
         2
                (By Ms. Fair) Would you have expected the $5.1 billion
02:32:28
         3
            Q.
            in OLED display module revenues to go up or down if we were
02:32:33
            looking at the phone instead of the display?
02:32:37
         5
02:32:42
            A. Well, the phone as a whole would cost more than just
           the display.
02:32:45
        7
                Samsung Display makes the displays, right?
02:32:46
           Q.
         8
           A. Yes, ma'am.
02:33:05
           Q. Samsung Electronics Company puts the phone together,
02:33:08
        10
02:33:11
        11
           right?
           A. That's also correct.
02:33:11
        12
02:33:12
        13
           Q. And then imports it into the United States?
           A. Actually, SEA imports it into the U.S. from SEC.
02:33:15
       14
02:33:19
       15
           Q. And so you know that SEA, as the company that sells the
           phones in the United States, is liable for its own
02:33:25
            infringement for those sales, right?
02:33:29
        17
           A. I understand that if the company imports the phone,
02:33:31
       18
02:33:34
       19
            then, yes, they are liable.
02:33:36
       20
            Q. You know what Solas's business model is, right?
02:33:43
       21
           A. I was here for the -- sorry, the intro, as well as
02:33:52
        22
           Mr. Padian's introduction, so, yes.
02:33:54
       23
           Q. I'm going to read you a sentence, and I want you to
02:34:04
       24
           tell me if it sounds right to be reminiscent of Solas's
           business model, okay?
02:34:10 25
```

- 02:34:11 1 A. Okay.
- 02:34:11 Q. "Our highly capable team of experts continues to
- identify, develop, and aggregate IP portfolios that are 02:34:16 3
- critical and indispensable to technology companies, and 02:34:19
- offers them fair and reasonable licensing or acquisition 02:34:23 5
- 02:34:27 opportunities, thereby spreading IP risks and costs across
- our extensive network of technology companies." 02:34:32 7
- MR. LERNER: Objection, Your Honor. Lacks 02:34:35 8
- 02:34:37 foundation, calls for opinions. There's no information the 9
- witness has. 02:34:42 10
- 02:34:42 11 THE COURT: The question is: Does it sound
- reminiscent of Solas's business model? He can either say, 02:34:45 12
- 02:34:50 13 yes, it does, or, no, it doesn't, or I don't have any idea,
- but he can answer the question. 02:34:53 14
- Objection is overruled. 02:34:55 15
- A. I'm sorry to make you read it again, but can you read 02:34:57
- it again? 02:34:59 17
- 02:35:00 18 Q. (By Ms. Fair) Sure.
- "Our highly capable team of experts continues to 02:35:01 19
- 02:35:07 20 identify, develop, and aggregate IP portfolios that are
- 21 critical and indispensable to technology companies, and 02:35:13
- 02:35:17 22 offers them fair and reasonable licensing or acquisition
- 02:35:20 23 opportunities, thereby spreading IP risks and costs across
- 02:35:24 24 our extensive network of technology companies."
- A. Well, I don't have details of what Solas does outside 02:35:28 25

```
1 of what was introduced in the court, so I don't really know
02:35:31
           their business model. So I don't -- I don't really know.
02:35:36
           Q. You know that Mr. Padian testified that they acquire
02:35:41
02:35:46
           patents and negotiate licenses using experts to help them
            in that process, right?
02:35:50
02:35:51
           A. I heard that part, yes.
           Q. You've heard of Intellectual Keystone Technology?
02:35:52
        7
02:36:04
           A. I'm sorry, can you give me the name again?
        8
               Intellectual Keystone Technology.
02:36:06
           Q.
           A. Actually, I don't think I'm familiar with that company.
02:36:09
        10
02:36:12
           Q. You're here as the corporate representative of Samsung
        11
           Electronics Company, right?
02:36:16
       12
           A. That's correct.
02:36:16
       13
           Q. And Samsung Electronics America, right?
02:36:17
       14
02:36:19
       15
           A. That's also correct.
           Q. You were here for Mr. Padian's testimony?
02:36:20
       16
02:36:26
       17
           A. Yes.
           Q. You heard him tell us that Intellectual Keystone goes
02:36:26
       18
02:36:31
       19
           out and buys patents to seek to license those patents and
02:36:35 20
            enforce those patents, right?
           A. I don't remember hearing if that was the name. But if
02:36:36 21
02:36:42 22
           you're telling me that's was what said during opening, but
02:36:45 23
            I wasn't familiar with that company before.
02:36:53 24
                    MS. FAIR: Mr. Wietholter, can we pull up
            Samsung's first quarter 2013 interim consolidated financial
02:36:56 25
```

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02:37:01
        1
           statements?
02:37:08
                    MR. LERNER: Objection, Your Honor. This is not
         2
           on the exhibit list, and this is not impeachment.
02:37:09
        3
                    MS. FAIR: It's cross-examination of a corporate
02:37:11
         4
            representative with an SEC statement, their own financial
02:37:14
02:37:18
            statements publicly available on their website.
        7
                    THE COURT: Is there any potential order in limine
02:37:20
            that would impact this that you're aware of, Mr. Lerner?
02:37:23
           If not, I'm going to let her go forward.
02:37:26
                    MR. LERNER: Depends where she goes with this,
02:37:28
       10
02:37:31
       11 Your Honor.
                    THE COURT: Well, I guess we need to see it first.
02:37:31
       12
           You're welcome to reurge any additional objections you
02:37:39
       13
           think are appropriate once it's visible.
02:37:41
       14
02:37:47
       15
           Q. (By Ms. Fair) At the very top you see, Samsung
           Electronics Company, Limited, and Subsidiaries?
02:37:50
           A. Yes.
02:37:52
       17
           Q. And Samsung provides to the public financial statements
02:37:52
       18
02:37:58
       19
           every quarter, right?
02:37:59
       20
           A. That's also true, yes.
02:38:00
       21
           Q. You can go get them off Samsung's website?
02:38:04
       22
           A. Yes, I believe that's correct.
02:38:05 23
           Q. And in the third paragraph under Company Overview, the
02:38:16 24
           second sentence, SEC, that's Samsung Electronics Company,
02:38:20 25
           right?
```

- 02:38:20 1 A. Yes.
- 02:38:21 Q. As the controlling company, consolidates its 164
- subsidiaries. And the two that are identified here are the 02:38:27
- two subsidiaries sitting in this courtroom, right? Samsung 02:38:30
- Display, Samsung Electronics America? 02:38:36 5
- A. Yes. 02:38:38
- Q. And then if we go further down on that same page, we 02:38:38 7
- see a table. And one of the subsidiaries that's 100 02:38:41
- 02:38:52 percent owned by Samsung is Intellectual Keystone
- Technology, right? 02:38:59 10
- 02:39:00 A. It's on the list, yes. 11
- 02:39:02 12 Q. Would it surprise you to know that Intellectual
- 02:39:12 13 Keystone Technology bought OLED patents from Seiko, the
- watch company? 02:39:17 14
- 02:39:17 15 A. I'm not familiar with what they purchased, so I don't
- know if I can say that I'm surprised or not. 02:39:20
- 17 MS. FAIR: Mr. Wietholter, can we go to the first 02:39:22
- half 2013 business report? 02:39:26 18
- Q. (By Ms. Fair) And if we look at the bottom of this 02:39:34 19
- 02:39:36 20 page, the very bottom right, you know what that number is?
- A. I would assume it's a number for -- a Bates number 02:39:44 21
- 02:39:48 22 maybe, produced in the case.
- 02:39:49 23 Q. And you know what SEC means?
- 02:39:50 24 A. Samsung Electronics Company?
- 02:39:52 25 Q. So this is a document produced in this case by Samsung

1 | Electronics Company. 02:39:56 02:39:59 A. It would appear to be so, yes. 02:40:00 Q. And if we go to the second page of this document, this 3 is a start of a table that goes for several pages, and we 02:40:07 see the headings we're looking at are Subsidiary, 02:40:09 02:40:15 Established In, and Major Business, and there's others there. But there's at least those first three columns, 02:40:19 7 02:40:23 right? 8 02:40:23 A. Yes, that's correct. Q. If we go to Page 8, we see Intellectual Keystone 02:40:24 10 02:40:44 11 Technology, right? 02:40:45 12 A. Yes. Q. Established in March 2013? 02:40:45 13 02:40:47 14 | A. Yes. 02:40:49 15 Q. New technology investment is the major business of that company, right? 02:40:56 16 02:40:56 A. Yes, that's what the document says. 17 Q. Document produced by Samsung Electronics Corporation, 02:40:58 18 02:41:02 19 the company that you're the corporate representative --02:41:05 20 representative of today, right? A. Yes, that's correct. 02:41:07 21 02:41:22 22 Q. If we go -- well --02:41:27 23 MS. FAIR: Mr. Wietholter, may we please have the 02:41:31 24 2014 first quarter Business Report? 02:41:37 25 Q. (By Ms. Fair) We see in the bottom right again the

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Bates label that shows this is another document produced by
02:41:41
        1
02:41:45
           Samsung Electronics Company, right?
           A. Yes.
02:41:46
        3
           Q. The company that you're the corporate representative
02:41:47
           of?
02:41:48
02:41:48
        6 A. Also true.
        7
                   MS. FAIR: And if we go to Bates Page 0671847,
02:41:50
02:42:02
        8 please.
02:42:02
           Q. (By Ms. Fair) We see headings of a table that starts
           on this page Investor, Investee, and Stake. Right?
02:42:05 10
02:42:13
       11
           A. Yes.
           Q. And so that tells us the company listed in the far left
02:42:13 12
           column is the one that owns some portion of the company
02:42:18 13
           listed in the second column, right, investor, investee?
02:42:21 14
02:42:26 15
           A. I would assume that's what those terms mean, yes.
                    MS. FAIR: Mr. Wietholter, can we please go to
02:42:28 16
           Bates Page 0671854?
02:42:31 17
           Q. (By Ms. Fair) And right there at the top, we see,
02:42:41
       18
           Intellectual Keystone Technology LLC, right?
02:42:43 19
02:42:44 20
           A. That's the highlighted portion, yes.
02:42:47 21
           Q. And who is it that is reflected as having ownership
02:42:51
       22
           interest in that company?
02:42:52 23
           A. SEA, or Samsung Electronics America.
02:43:04 24
                   MS. FAIR: Thank you, Mr. Wietholter.
           Q. (By Ms. Fair) But you're not aware that Intellectual
02:43:06 25
```

Keystone Technology has purchased patents from Seiko, the 02:43:08 1 02:43:11 watch company, patents in the OLED space? A. In my personal capacity at my job, no, I'm not aware. 02:43:13 3 02:43:18 Q. Would it surprise you to find out that the statement I read of the business model of aggregating an IP portfolio 02:43:25 02:43:28 and licensing it came from Intellectual Keystone Technology's website? 02:43:31 7 02:43:31 A. Once again, I wasn't aware of the company, as I 02:43:35 attested to, so I don't know. Samsung is proud of their products, right? 02:43:36 10 Q. 02:43:42 Yes, ma'am. 11 Α. 02:43:43 12 Q. Innovative company? 02:43:44 13 Α. We try to be. 14 Q. You told us about all the CES awards? 02:43:45 02:43:52 15 A. I mentioned CES and that we received a number of them, 02:43:54 16 yes. Q. But Samsung doesn't have a monopoly on good ideas? 02:43:54 17 A. No, we don't corner the market on good ideas. 02:43:58 18 02:44:01 19 Q. One of the ideas that we've heard about that Samsung 20 02:44:08 showed in its owning was curved displays, right? A. I believe that was part of the opening. 02:44:11 21 02:44:13 22 Q. And I think it was 2009/2014 was the time period where 02:44:19 23 they were looking at curved displays? 02:44:22 24 A. I don't recall the specific dates from the opening.

MS. FAIR: Mr. Wietholter, can we have PTX-650,

02:44:24 25

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02:44:29
         1
           please?
02:44:31
            Q. (By Ms. Fair) You were here for Mr. Shaikh's
           testimony, right?
02:44:32
         3
           A. Yes, I was.
02:44:33
            Q. And you remember he worked for a company called Atmel?
02:44:34
         5
02:44:37
           A. Yes.
        7
           Q. And he testified that he was visiting Samsung over and
02:44:38
           over and over in 2012, 2011, 2013, for several years.
02:44:42
                                                                    Do
        8
02:44:49
           you remember him testifying to that?
           A. I remember him saying that he had visited Samsung. I
02:44:51
        10
           believe -- I think he mentioned two divisions, but one of
02:44:54
       11
02:44:58
       12
            them, I think, was specific to the display.
            Q. And he was showing Samsung his technology over and over
02:45:00
       13
           and over again, right?
02:45:02 14
02:45:04 15
                    MR. LERNER: Objection, Your Honor, lacks
           foundation. She's just asking the witness what he's heard
02:45:05 16
            attending trial.
02:45:09 17
                    MS. FAIR: He's the corporate representative,
02:45:10
       18
02:45:12 19 Your Honor.
02:45:12 20
                    THE COURT: I'm well aware of that, counsel.
02:45:14 21
                    Restate your question, Ms. Fair.
02:45:20 22
                (By Ms. Fair) You heard Mr. Shaikh testifying that he
02:45:23 23
           was visiting Samsung over and over and over, right?
02:45:27 24
                    MR. LERNER: Same objection.
02:45:29 25
                    THE COURT: I'll allow her to ask what he heard in
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02:45:33
        1 the courtroom.
02:45:33
                    But the -- this witness is not going to be a
            device by which prior testimony is going to be replayed to
02:45:38
02:45:41
            the jury. You need to make a point and move on, Ms. Fair.
                    MS. FAIR: Yes, Your Honor.
02:45:44
         5
02:45:45
            Q. (By Ms. Fair) You heard that, right?
            A. I heard that he visited Samsung as part of his
02:45:46
        7
02:45:50
            testimony, yes.
02:45:51
            Q. And this is one of the presentations he showed us,
02:45:54
        10
            right?
02:45:54
            A. I believe this is one of the presentations that we used
        11
02:45:57
       12
            when he was on the stand, yes.
            Q. This was from 2012?
02:45:59
       13
02:46:00
       14
            A. According to the document, yes.
02:46:06
       15
                    MS. FAIR: Mr. Wietholter, can we go to Page 3,
            please? Can we go to the next page, please?
02:46:09
02:46:23
       17
            Q. (By Ms. Fair) Samsung wasn't the only one thinking and
            working on flexible curved displays in 2012, were they?
02:46:27
       18
            A. No. The date on this page, though, says 2013. I don't
02:46:33
       19
       20
02:46:47
            know.
            Q. So Samsung wasn't the only one in 2011, 2012, 2013,
02:46:47
        21
02:46:52
       22
            these years that Mr. Shaikh was visiting Samsung showing
02:46:55 23
            them this technology, they weren't the only ones with
02:46:58 24
            flexible technology in mind, right?
            A. No, like I said, we were not the only ones with
02:47:01 25
```

- 1 | flexible technology. 02:47:04 Q. You have patents, right? 02:47:05 A. I do. I actually have four. 02:47:06 Q. You're proud of those patents? 02:47:08 A. Absolutely. 02:47:09 5 02:47:10 Q. And you have faith in the Patent and Trademark Office to go back to them to get more patents, right? 02:47:14 A. In product and marketing now, but, yes, I have faith in 02:47:16 8 02:47:21 the product and technology office -- sorry, the PTO office. Q. And Samsung has a number of patents, right? 02:47:24 10 02:47:28 A. Yes, we do. 11 Q. I think I've read they're vying with IBM for the most 02:47:29 12 13 number of patents. Sound right to you? 02:47:35 A. Specific to the country, but in the U.S., yeah, it's 02:47:37 14 02:47:39 15 typically Samsung and IBM in that neighborhood for 1 and 2. Q. Is it fair to say, then, that Samsung has faith in the 02:47:44 16 Patent and Trademark Office or they wouldn't keep going 02:47:47 17 back for all of those patents if they didn't believe in the 02:47:50 18 good work that was being done there? 02:47:53 19
- 02:47:55 20 A. Yes, we have faith in the Patent Office.
- 02:47:58 21 Q. It wasn't easy to be granted your four patents, right?
- 02:48:00 22 A. No, it took a little bit of time.
- 02:48:03 23 Q. And you understand here that Samsung is asserting that
- 02:48:08 24 | two of the patents in this case are invalid, right?
- 02:48:11 25 A. My understanding is they're challenging two of the

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02:48:15
        1 claims on some of the -- two of the claims of those
02:48:18
          patents, yes.
           Q. That's a pretty serious charge, right?
02:48:18
         3
02:48:21
           A. Yes.
           Q. I mean, you know that if there's an invalidity finding,
02:48:21
        5
           that's not just for this case, that's for all time?
02:48:27
           A. If there's an invalidity finding, then those claims
02:48:30
        7
           would be gone for all times, yes, that's correct.
02:48:33
02:48:35
           Q. You have a number of competitors in the cell phone
02:48:42
       10
           industry?
           A. Just a few.
02:48:42
       11
02:48:43 12 Q. We've heard about Apple. We know about Apple?
02:48:46
       13
           A. That one would be obvious, yes.
02:48:49 14 Q. LG?
02:48:50 15 A. Also true.
02:48:51 16 Q. Motorola?
02:48:52 17 A. Yes.
       18
           Q. Maybe less so these days?
02:48:52
02:48:54
       19
           A. Yeah, less so these days.
02:48:55 20
           Q. But in the OLED display industry, you know as a company
           representative of a cell phone company that's in the market
02:48:59 21
       22
           buying OLED displays, there's two main players, right?
02:49:02
02:49:07 23
           A. I don't know exactly how many OLED display
02:49:11 24
           manufacturers or components are there, but I know there's
02:49:15 25
          more than one, yes.
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```
Q. There's LG and Samsung, big competitors?
02:49:16
        1
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- A. Are you asking about the phones or the displays? Can 02:49:19
- 3 | you clarify? 02:49:22
- 02:49:23 Q. I'm talking about the displays.
- A. So from a display perspective, yes, SEC makes displays 02:49:25 5
- as well as LG. 02:49:30
- Q. And like Samsung, LG is a sophisticated company, right? 02:49:31 7
- 02:49:35 A. I'd like to think so, yes. 8
- 02:49:37 They have smart engineers? Q.
- 02:49:41 10 A. Also agree.
- In-house counsel? 02:49:42 11 | 0.
- 02:49:43 12 A. I would assume so. I don't work for them, but, yes.
- 02:49:46 13 Q. Outside lawyers?
- 02:49:47 14 | A. Potentially, yes.
- 02:49:48 15 Q. And they apply for patents?
- 02:49:51 16 A. I would assume so.
- Q. They seek patent protection, just like Samsung? 02:49:51 17
- 18 A. Yes. 02:49:57
- Q. But there's a big difference between LG and Solas -- LG 02:49:57 19
- 02:50:00 20 and Samsung, right?
- 02:50:03 21 A. You have to quantify what you're asking. I don't
- 02:50:07 22 understand.
- 02:50:07 23 Q. Well, LG took a license to the Solas portfolio. You're
- 02:50:13 24 | aware of that, right?
- A. Actually, I'm not sure that I am, because I wasn't here 02:50:13 25

1 for the licensing portion. 02:50:19 Q. Well, you were here for opening statement, right? 02:50:20 02:50:23 3 A. Yes. Q. When Mr. Ward showed the jury that LG -- showed them in 02:50:23 open court that they're a license -- a licensee of Solas's 02:50:27 02:50:31 portfolio, right? A. I think the numbers were blacked out when that was 02:50:32 7 02:50:36 shown. But, yes, I learned about that here. 02:50:38 Q. That's right. You couldn't see the number that LG paid for Solas's portfolio, right? 02:50:40 10 02:50:42 A. No, I believe it was blacked out. 11 Q. You think it's fair for this jury to consider what a 02:50:44 12 02:50:48 13 sophisticated company thought Solas's patents were worth, whether they're a mangy mare or a Kentucky Derby horse? 02:50:52 14 02:50:58 A. I didn't follow the question, I'm sorry. 15 Q. Do you think it's fair for this jury to consider what 02:51:00 LG, a sophisticated company, thought of Solas's patent 02:51:04 17 portfolio? 02:51:08 18 MR. LERNER: Objection, Your Honor. That was a 02:51:08 19 02:51:10 20 settlement agreement involving litigation over unasserted patents in this case. It's irrelevant and prejudicial. 02:51:13 21 02:51:16 22 THE COURT: Are you telling me the LG license 02:51:21 23 doesn't cover the patents in this case? 02:51:23 24 MR. LERNER: It settled lawsuits that involved

different patents of the portfolio, so it included these --

02:51:26 25

```
THE COURT: But it wasn't limited to these.
02:51:28
         1
02:51:30
                    MR. LERNER: It wasn't limited to these.
         2
                    THE COURT: All right. That's all been brought
02:51:32
         3
            out, and the jury is aware of it. The objection is
02:51:35
        4
            overruled.
02:51:38
         5
02:51:38
           A. One more time, I'm sorry.
            Q. (By Ms. Fair) Do you think it's fair for this jury to
02:51:42
        7
            consider the amount that LG, a sophisticated company, like
02:51:44
            Samsung, evaluated and paid to license to Solas's
02:51:49
           portfolio?
02:51:55
       10
           A. I don't know what that amount is or what the
02:51:55
       11
            investigation that was done. So I don't know.
02:51:57
       12
02:51:59
       13
                    MS. FAIR: I'll pass the witness.
02:52:00 14
                    THE COURT: All right. Redirect, Mr. Lerner?
02:52:00 15
                                REDIRECT EXAMINATION
       16 BY MR. LERNER:
02:52:31
            Q. Mr. Repice, do you have any understanding as to whether
02:52:31
       17
           when LG reached an agreement with Solas, it concerned
02:52:36
       18
           televisions or mobile phones?
02:52:39
       19
02:52:41
       20
           A. I don't know.
02:52:41
        21
           Q. Do you know if the OLED technology used in televisions
02:52:46
       22
           is similar to what's used in mobile phones?
02:52:50
       23
           A. It could be, but I don't know.
02:52:52 24
           Q. Do you know what technology LG uses and how that
           differs from what Samsung Electronics and Samsung Display
02:52:55 25
```

02:52:59 1 use? A. Once again, I don't know. 02:52:59 Q. Do you have any understanding of the circumstances that 02:53:00 led to the LG lawsuit settlement agreement with Solas? 02:53:06 A. No. 02:53:07 5 02:53:08 Q. You were asked some questions about corporate structure and people you talked to. Is it possible for any one 02:53:11 7 02:53:15 person at a company the size of Samsung Electronics America or Samsung Electronics to know everything the company has? 02:53:18 No, sir. 02:53:20 10 Α. 02:53:21 11 Can you explain? Ο. A. I mean, we're a team, and it typically takes hundreds 02:53:22 12 02:53:28 13 of engineers and people to actually launch a phone. You know, I do my job, and I expect other people on the team to 02:53:31 14 15 02:53:34 do theirs. I'm not going to know everyone that touches a phone from the minute it actually leaves the production 02:53:36 16 floor until the time it ends up in the consumer's hand. 02:53:39 17 That's just too many people. 02:53:43 18 Q. So you were shown an exhibit from Atmel from 2013 that 02:53:45 19 20 02:53:49 showed a picture of a curved display. Do you recall that? A. Yes, I believe I do. 02:53:52 21 02:53:53 22 And you were asked if other people wanted curved 02:53:57 23 displays -- wanted to make them. Do you recall that? 02:53:59 24 A. I believe that was the question, yes.

Q. And who succeeded in actually doing that?

02:54:00 25

A. Well, Samsung was one of them, obviously. 02:54:02 1 Q. And who introduced the world's first curved OLED 02:54:04 displays? 02:54:09 3 A. I believe we did. 02:54:09 Q. Is there a difference between having an idea, creating 02:54:10 5 02:54:14 a picture, and actually making a working device that can be made for customers? 7 02:54:16 A. Typically, it takes a lot of time to go from, let's 02:54:17 02:54:21 say, concept or idea into production and commercialization. Q. You were asked some questions about the material for 02:54:26 10 touch sensors and whether you had heard about a change from 02:54:28 11 ITO to metal mesh at some point? 02:54:32 12 02:54:33 13 A. Yes, I believe that was one of the questions. Q. If the material of the touch sensor were important to 02:54:37 14 02:54:39 15 the customer experience, would you have heard about it, given your role at the company? 02:54:41 16 02:54:43 17 A. Potentially. And did you ever hear about anything like that? 02:54:44 18 Ο. 02:54:46 19 A. No, I did not hear. 02:54:49 20 MR. LERNER: Can we pull up Repice 2? Q. (By Mr. Lerner) This is the Defendants' -- the 02:54:54 21 02:54:56 22 Plaintiff's demonstrative used with you. 02:55:01 23 Well, let me just ask you: Do you know if the 02:55:09 24 Galaxy Note 7 used a metal mesh or an ITO touch sensor?

A. Off the top of my head, I don't know, no.

02:55:13 25

Q. Was it released before or after the Galaxy S8? 02:55:16 1 02:55:19 A. I think it was actually after. Q. Have you seen any evidence to support the claims that 02:55:24 3 Plaintiff has made about the benefits of the '338, '450, or 02:55:34 '311 patents? 02:55:39 5 02:55:39 A. I haven't seen any quantifiable data, no. Q. Now, you were asked about Solas's teardowns and the 02:55:42 7 02:55:46 extensive teardowns that they said they did. 8 02:55:49 If Solas had teardowns that actually showed 02:55:54 10 infringement, would you expect them to have provided that to their expert for his analysis? 02:55:57 11 02:55:59 12 A. I would have expected. Q. And if those teardowns actually showed evidence of 02:56:00 13 infringement, would you expect Solas in this case to show 02:56:03 14 02:56:05 15 them to the jury? A. Potentially. I mean, their case. 02:56:06 16 Q. Would it surprise you if they had evidence directly 02:56:10 17 showing infringement from actual products if they didn't 02:56:13 18 use it? 02:56:15 19 02:56:16 20 A. It might be surprising. I don't know their case 02:56:19 21 strategy. 02:56:21 22 Q. Thank you. 02:56:22 23 MR. LERNER: Pass the witness. 02:56:23 24 THE COURT: Further cross-examination?

Please proceed, Ms. Fair.

02:56:42 25

## 02:56:42 1 RECROSS-EXAMINATION BY MS. FAIR: 02:56:44 2 Q. Mr. Repice, are you suggesting that it would be 02:56:44 3 unreasonable to rely on the actual information provided by 02:56:51 Samsung Display in this case to prove the infringement by 02:56:56 5 02:57:00 Samsung? A. I believe that the documents that they've provided were 02:57:01 7 shared on both sides. 02:57:05 8 Q. You don't know whether specific phone has metal mesh or 02:57:14 indium tin oxide in it, right? 02:57:21 10 A. Off the top of my head, no. 02:57:22 11 02:57:25 12 Q. That's not important to you, right? A. It is not part of my day-to-day responsibilities, no. 02:57:27 13 Q. It's not important to consumers; would you agree with 02:57:30 14 02:57:33 15 that? A. I would agree that a general consumer may not 02:57:33 16 understand that level of detail, no. 02:57:36 17 Q. But as a manufacturing company making a sale of 02:57:37 18 something, lowering costs and increasing profits would be 02:57:45 19 02:57:48 20 important, right? 02:57:49 21 A. It's one of the things that we would consider, yes. 02:57:52 22 I mean, Samsung is in the business to make money, Q. 02:57:55 23 right? 02:57:55 24 A. As well as phones, yes.

Q. And one way to make money is to reduce your costs?

02:57:57 25

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02:58:02
         1
           A. That is a potential way to make money.
            Q. So if you could save a dollar or $2 on every display,
02:58:04
            and you sell millions of phones, that could be important to
02:58:11
            Samsung, right?
02:58:17
02:58:17
        5
            A. It could be, yes.
                    MS. FAIR: I'll pass the witness.
02:58:20
         6
                    THE COURT: Additional direct, Mr. Lerner?
        7
02:58:22
02:58:24
                    MR. LERNER: No, Your Honor.
         8
                    THE COURT: All right. Mr. Repice, you may step
02:58:25
         9
02:58:28
       10
            down, sir.
                    THE WITNESS: Thank you.
02:58:28
        11
02:58:29
       12
                    THE COURT: Thank you.
02:58:31
        13
                    THE WITNESS: My binder?
                    THE COURT: Just leave it there.
02:58:32
       14
02:58:34
       15
                    THE WITNESS: Okay. Thank you, sir.
                    THE COURT: Plaintiff, call your next witness --
02:58:36
       16
            excuse me, Defendant, call your next witness.
02:58:39
       17
       18
                    MR. LERNER: Thank you, Your Honor. Our next
02:58:46
02:58:48
       19
           witness would be Mr. Won-Kyu Kwak of Samsung Display.
02:58:55
       20
                    THE COURT: All right. Ladies and gentlemen, it's
       21
           my understanding that this witness is not a native English
02:58:57
        22
            speaker and will testify with the aid and benefit of an
02:59:01
02:59:07 23
            interpreter.
02:59:07 24
                    That interpreter has been sworn by the Court
           previously. And so that you'll understand that this is a
02:59:09 25
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little bit different procedure, but you should listen to
02:59:12
        1
            the answers given and translated into English, and you
02:59:15
            should treat them just as if any other witness were giving
02:59:19
02:59:21
            them.
                    If the witness and the interpreter will come
02:59:22
         5
           forward, please.
02:59:25
        6
        7
                    (Witness sworn.)
02:59:42
02:59:43
         8
                    THE COURT: All right. Please come around, and
03:00:17
           we'll have Mr. Kwak to have a seat on the witness stand.
03:00:22
       10
                    Mr. Johnston, we're going to need an additional
03:00:27
           chair for the interpreter to sit next to the witness. Do
       11
03:00:31 12
           you have that?
03:00:31
       13
                    MR. LERNER: Your Honor, permission to approach
03:00:33 14 | with the binders?
03:00:34 15
                    THE COURT: Yes, please do.
                    MR. LERNER: We have physical exhibits, may we
03:00:35 16
           approach with those, as well?
03:00:37
       17
                    THE COURT: Let's wait until I have a Court
03:00:38
       18
            Security Officer back in the room. Go ahead and pass out
03:00:41 19
03:00:44 20
           your binders.
                    MR. LERNER: I can wait until later for those.
03:00:44 21
03:01:41 22
                    THE COURT: Feel free to -- ma'am, feel free to
03:01:44 23 | move the chair wherever you need to.
03:02:04 24
                    All right. Do you have something to deliver to
           the witness, Mr. Lerner?
03:02:06 25
```

03:02:08	1	MR. LERNER: I do. I have three physical
03:02:10	2	exhibits.
03:02:11	3	THE COURT: If you'll hand them to the Court
03:02:13	4	Security Officer, he'll hand them to the witness.
03:02:23	5	All right. You may proceed with your direct
03:02:25	6	examination, sir.
03:02:27	7	MR. LERNER: Thank you, Your Honor.
02:58:53	8	WON-KYU KWAK, DEFENDANT'S WITNESS, SWORN
02:58:53	9	(INTERPRETED)
02:58:53	10	DIRECT EXAMINATION
03:02:29	11	BY MR. LERNER:
03:02:29	12	Q. Good afternoon, Mr. Kwak. Can you please introduce
03:02:34	13	yourself to the jury?
03:02:37	14	A. Good afternoon, everyone. My name is Won-Kyu Kwak.
03:02:46	15	Q. Where do you work?
03:02:47	16	A. I work at Samsung Display.
03:02:55	17	THE COURT: Just a moment. If the interpreter
03:02:57	18	does not mind, I think the jury will hear much better if
03:03:00	19	you can remove your mask while you're interpreting.
03:03:07	20	THE INTERPRETER: Oh, sure, sir.
03:03:09	21	THE COURT: Just pull it down. Whatever's most
03:03:12	22	comfortable. Thank you.
03:03:13	23	Let's continue.
03:03:15	24	Q. (By Mr. Lerner) What is your position, sir?
03:03:16	25	A. I am a vice president.

- 03:03:17 1 Q. What do you do as a vice president?
- 03:03:19 2 A. I am the leader of design team, and I'm in charge of
- 03:03:40 3 AMOLED panel and touch design.
- 03:03:43 4 Q. Have you ever testified in court before?
- 03:03:45 5 A. No, I have not.
- 03:03:49 6 Q. Can you please describe your education?
- 03:04:15 7 THE INTERPRETER: Your Honor, I'm just going to
- 03:04:17 8 ask what the witness just said about his detailed major.
- 03:04:31 9 A. So I have a Master's degree in physics, and in more
- 03:04:36 10 detail, I majored in display element, which specifically --
- 03:04:42 11 | specifically means amorphous silicon transistor and
- 03:04:48 12 polysilicon transistor.
- 03:04:49 13 Q. When did you start work at Samsung Display?
- 03:04:58 14 A. It's 2000.
- 03:04:58 15 Q. When did Samsung Display start its work on the research
- 03:05:03 16 and development of OLEDs?
- 03:05:14 17 A. That was January of 2000.
- 03:05:17 18 Q. Who was the first company in the world to bring to
- 03:05:21 19 | market an OLED display for smartphones?
- 03:05:26 20 A. It was Samsung Display.
- 03:05:35 21 Q. When was that first display introduced?
- 03:05:39 22 A. The mass production started in January of 2007.
- 03:05:53 23 Q. Have you heard of a company called Casio?
- 03:05:55 24 A. Yes, I have.
- 03:06:01 25 Q. When Casio needed to put OLED displays in products, who

did it turn to for those displays? 03:06:09 1 03:06:12 A. We supplied OLED displays. Q. Beginning when? 03:06:29 3 A. Between 2008 and 2010, we supplied one million display 03:06:30 in the size of 3.1-inch. 03:06:49 5 03:06:51 Q. And that was all to Casio? 7 Yes. 03:06:53 Α. How many engineers do you supervise? 03:06:57 8 Q. There are 140 engineers. 03:07:00 Α. Q. How many engineers work at Samsung Display on the 03:07:11 10 03:07:15 research and development of OLED displays or touch sensors? 11 A. There are about 11,000 engineers. 03:07:20 12 03:07:36 13 Q. Is innovation important to Samsung Display? A. Yes, it is very important. 03:07:39 14 03:07:47 15 Q. Has Samsung Display received awards for innovations specifically with its OLED displays? 03:07:52 16 03:07:54 17 A. Yes, there were many. MR. LERNER: Mr. Beall, can we please pull up 03:08:10 18 DDX-4.001? 03:08:12 19 03:08:20 20 Q. (By Mr. Lerner) Mr. Kwak, can you briefly explain to the jury what these particular awards related to? 03:08:23 21 03:08:26 22 A. So regarding display, some organization called SID, or 03:09:08 23 Society of Information Display, awarded us Gold Award for 03:09:16 24 OLED, more specifically flexible OLED, in year 2014 and

03:09:22 25

2015.

1 Q. Is the Society for Information Display a well-known 03:09:23 organization in the field of display technology? 03:09:28 A. Yes. 03:09:30 3 Q. How long have you personally been involved in the 03:09:42 research and development of OLED displays? 03:09:47 03:09:50 A. I have been involved in the research and development 7 for 20 years since I joined my company in 2000. 03:10:09 Q. Are you an inventor yourself? 03:10:13 8 03:10:16 A. Yes, of course. Q. How many U.S. patents have you been awarded for your 03:10:21 10 03:10:25 11 | work? A. I have about 160 patents registered in the United 03:10:25 12 States for U.S. patents. 03:10:43 13 Q. How many of those relate to OLED technology and touch 03:10:44 14 sensors? 03:10:48 15 A. Almost all of them are related to OLED and touch 03:10:48 16 03:11:10 17 sensors. MR. LERNER: Your Honor, we're going to now move 03:11:10 18 to confidential technical information, and I'd request to 03:11:12 19 03:11:15 20 seal the courtroom. 03:11:16 21 THE COURT: Based on counsel's request, I'll order 03:11:18 22 the courtroom sealed. 03:11:20 23 All persons present not subject to the protective

03:11:23 24 order that's been entered in this case should excuse

themselves and remain outside the courtroom until it's

03:11:26 25

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reopened and unsealed.
03:11:30
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                     (Courtroom sealed.)
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                     (This portion of the transcript is sealed
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                     and filed under separate cover as
                     Sealed Portion No. 10.)
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                     (Courtroom unsealed.)
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         7
                     THE COURT: Having unsealed the courtroom --
04:03:58
            having unsealed the courtroom, I'm going to instruct the
04:04:00
         8
04:04:04
            ladies and gentlemen of the jury to simply close your
            notebooks and leave them in your chairs, follow all the
04:04:05
       10
04:04:08
            instructions I've given you, and we'll be back shortly to
       11
       12
            continue with the Defendants' direct examination of
04:04:12
           Mr. Kwak.
04:04:15 13
                     The jury is excused for recess at this time.
04:04:16
       14
04:04:19
       15
                    COURT SECURITY OFFICER: All rise.
04:04:51
       16
                     (Jury out.)
                     THE COURT: Let me see Mr. Lerner, Mr. Haslam, and
04:04:52
       17
            Ms. Smith, together with Mr. Fenster, Ms. Fair, and
04:04:55
       18
            Mr. Mirzaie in chambers, please.
04:05:02
       19
                     We stand in recess.
04:05:05 20
                     COURT SECURITY OFFICER: All rise.
04:05:07
       21
04:05:09 22
                     (Recess.)
04:24:38 23
                     (Jury out.)
04:24:38 24
                     COURT SECURITY OFFICER: All rise.
04:24:40 25
                     THE COURT: Be seated, please.
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Are you prepared to continue with your direct
04:24:53
         1
         2 examination, Mr. Lerner?
04:24:57
                    MR. LERNER: Yes, I am, Your Honor.
04:24:59
         3
                    THE COURT: All right. If you'll take your mask
04:25:00
        4
           off, I'll bring the jury in.
04:25:04
        5
04:25:06
                    MR. LERNER: Thank you.
        6
        7
                    THE COURT: Let's bring in the jury, Mr. Latham.
04:25:07
                    COURT SECURITY OFFICER: All rise.
04:25:11
        8
04:25:19
                    MS. FAIR: Your Honor, may we clarify, is the
       9
04:25:22 10 | courtroom currently sealed or unsealed?
04:25:25 11
                    THE COURT: Unsealed. I don't usually recess and
04:25:29 12 | walk out of a sealed courtroom, at least I try not to.
04:25:48 13
                    (Jury in.)
                    THE COURT: Welcome back, ladies and gentlemen.
04:25:51 14
04:25:53 15 | Please have a seat.
                    We'll continue with the Defendants' direct
04:25:54 16
04:25:57 17 examination of Mr. Kwak.
04:26:03 18
                    Counsel, you may continue.
                    MR. LERNER: Thank you, Your Honor. I request to
04:26:05 19
04:26:06 20 | seal the courtroom for technical information.
04:26:09 21
                    THE COURT: All right. Based on counsel's
04:26:11 22
           request, I'll order the courtroom sealed. Those present
04:26:13 23
           not subject to the protective order in this case should
04:26:16 24
           excuse yourselves and remain outside of the courtroom until
04:26:19 25 it's reopened and unsealed.
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04:26:22
         1
                     (Courtroom sealed.)
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                     (This portion of the transcript is sealed
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                     and filed under separate cover as
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         3
                     Sealed Portion No. 11.)
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         4
                     (Courtroom unsealed.)
04:31:52
         5
04:31:53
                     THE COURT: I just sent the jury out. We have an
         6
            IT problem, we'll get that addressed, and then we'll bring
04:31:56
        7
            the jury back in.
04:31:59
        8
                     Let's go off the record.
04:32:01
         9
04:32:06 10
                     (Recess.)
04:43:29 11
                     (Jury out.)
                     THE COURT: All right. If everybody will take
04:43:33 12
            their place, we'll go back on the record, and I will bring
04:43:36 13
04:43:42
       14
            in the jury.
04:44:13 15
                    All right. Counsel, take your places. We're back
           on the record.
04:44:16 16
04:44:17 17
                    Mr. Latham, bring in the jury, please.
                     COURT SECURITY OFFICER: All rise.
04:44:20
       18
04:44:21 19
                     (Jury in.)
04:44:23 20
                     THE COURT: Please be seated.
04:45:07
       21
                     I apologize for the interruption.
04:45:10 22
                     Mr. Lerner, please continue with your direct
04:45:14 23 examination.
04:45:15 24
                    MR. LERNER: Your Honor, is the courtroom sealed,
04:45:17 25
           or may I request that it be sealed, if it's not?
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THE COURT: It is not, but I will grant your
04:45:20
         1
           request and order the courtroom sealed at this time.
04:45:23
         2
                     Anyone present not subject to the protective order
04:45:26
         3
            in this case should excuse themselves and remain outside
04:45:30
            until the courtroom is unsealed and reopened.
04:45:34
         5
04:45:40
                     (Courtroom sealed.)
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                     (This portion of the transcript is sealed
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                     and filed under separate cover as
         8
04:45:40
                     Sealed Portion No. 12.)
         9
06:17:37
       10
                     (Courtroom unsealed.)
                     THE COURT: Ladies and gentlemen, we're going to
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        11
            stop for the day at this juncture. I'll ask you to close
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       12
06:17:45
       13
            and leave your notebooks on the table in the jury room as
            you leave the courthouse. Please travel safely to your
06:17:48
       14
06:17:52
       15
            homes.
                     Please be back tomorrow morning ready to go by
06:17:53 16
            8:30, as you have, and I want to thank you for that.
06:17:55
       17
                     Please follow all the instructions I've given you
06:17:58
       18
06:18:01
       19
            about your conduct during the course of the trial,
06:18:05
       20
            including, of course, not to discuss the case with anyone
06:18:07
        21
            or among the eight of you.
06:18:08
        22
                     With those instructions, together with all the
06:18:11
        23
            other instructions I've given you, I wish you a safe trip
06:18:16
       24
            home, and I'll see you in the morning.
06:18:19 25
                     The jury is excused for the evening at this time.
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06:18:22	1	COURT SECURITY OFFICER: All rise.
06:18:23	2	(Jury out.)
06:18:24	3	THE COURT: Be seated, please.
06:19:01	4	Counsel, according to my records, the Plaintiff
06:19:21	5	has 4 hours and 23 minutes of trial time remaining. The
06:19:26	6	Defendant has 6 hours and 34 minutes of trial time
06:19:31	7	remaining.
06:19:31	8	Now, as mentioned earlier on the record,
06:19:34	9	Mr. Haslam, I'm going to afford you an opportunity on
06:19:37	10	behalf of Defendants to make a record with regard to the
06:19:41	11	guidance I've given the parties concerning Dr. Fontecchio,
06:19:47	12	his expert report, executed and rendered prior to the
06:19:52	13	Court's supplemental claim construction, and the issues
06:19:57	14	that have arisen as disputes between the parties as to the
06:20:00	15	proper areas of his testimony at this trial.
06:20:03	16	You may proceed.
06:20:04	17	MR. HASLAM: Thank you, Your Honor.
06:20:04	18	I just want to put three things on the record that
06:20:08	19	occurred in chambers.
06:20:10	20	As I understand it, the Court said that we cannot
06:20:14	21	present the written description argument, that if not
06:20:18	22	all active elements have to be covered, that the inventors
06:20:22	23	were not in possession of that invention.
06:20:25	24	I also understood, and that the ruling was, is
06:20:29	25	that we were not permitted in this case, in our

non-infringement case, to be able to discuss the pull-out 1 current as it is shown and described in the '338 patent, and that we must only address the position taken by the 3 Plaintiff.

I also understand that with respect to another dispute with the '450 patent, that we are not permitted to arque that T3 is -- T2 is, in fact, the selection transistor that meets the claim limitation, but we are limited to trying to establish and only arguing that T3 isn't it.

And I think those unfairly -- the written description, I understand the Court's argument.

The other two, I think, unfairly hamper our ability to argue to the jury that the claim limitation and how it's -- how it is intended -- how it is described and construed by the Court is based on the specification and the description in the claim is T2, and it is not T3.

And I think it hampers us that we have to say it's not T3 without being able to tell the jury not that there is no selection transistor in the device, but it is over here.

And that's the basis of the objection.

THE COURT: All right. Well, as I noted in our discussion in chambers when the parties brought me these disputes regarding Dr. Fontecchio's testimony at this

06:20:45 06:20:51 06:20:52 5 06:20:57 7 06:21:00 06:21:06 8 06:21:11 06:21:14 10

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trial, Dr. Fontecchio rendered his expert report as a technical expert for the Defendants -- I believe it was September of last year.

His report took the position, and Samsung strenuously argued to the Court as a part of the pre-trial process, that the term "covers" from the claim language must mean covering all of the surface and coverage of any area less than a complete coverage was not covering.

The parties also argued -- in fact, both parties took the position with the Court late in the trial at a time and date when we thought we were weeks away from selecting a jury and going to trial, that under the precedent established by 02 Micro, the Court had an obligation to construe that term.

The Court entered a supplemental claim construction order, having accepted its obligations under 02 Micro, and found that "cover" or "covering" did not require complete and total coverage but only required that it lie on the surface of. That construction was given to the parties.

That construction did not confirm the position of Samsung, which led to the subsequent claim construction or the amended claim construction. In fact, it was contrary to and opposite of what Samsung strenuously argued at pre-trial.

And the portions of the opinion of Dr. Fontecchio -- there was no request by Samsung, subsequent to the Court's amended claim construction, to reopen expert discovery to amend in any way his report. Samsung has held to and sat on that original report, which was issued before the supplemental claim construction, ever since.

And the argument came to the Court, as raised by Solas, that to allow Dr. Fontecchio to testify to the full range of his report, given that it is clearly inconsistent with the subsequent claim construction, at least to some extent inconsistent with the Court's claim construction -the subsequent claim construction that I entered into, would be permitting this expert to testify contrary to the Court's claim construction.

I will note, in hindsight, it would have been better if Solas had moved under Daubert to attack the direct portions of his report that they now complain about as being contrary to the claim construction.

But after the Court rendered its supplemental claim construction last fall, Samsung did nothing and Solas did nothing. And months went by because of the pandemic, and now we have a trial and we have a jury in the box, and I'm confronted with a disagreement as to the propriety of his original opinions subject to the -- and in comparison

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to the supplemental claim construction that I was pushed 06:25:23 1 06:25:27 and shoved into rendering by both parties against my 06:25:32 wishes. 3 MR. HASLAM: I recall. 06:25:32 4 THE COURT: I think that the original report of 06:25:34 5 06:25:36 Dr. Fontecchio as it stands and his position that the entirety must be covered -- there must be total coverage to 7 06:25:40 06:25:44 have "cover" at all is improper. 06:25:50 I'm not going to permit him to testify to that. It is in direct contravention of the subsequent claim 06:25:53 10 06:25:58 11

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construction opinion of the Court, and I think that taints his enablement and lack of possession by the inventor arguments. And I'm going to, as I told you in chambers, prevent him from offering those opinions or that testimony at this trial.

I also think with regard to his non-infringement arguments, given that these are claims that are not limited to the elements but are open to additional elements, it is not -- it is not the purview of the Defendant to take elements that have not been asserted by the Plaintiff as reading on the claim language to establish infringement and take those non-accused elements and analyze them and say: This shows we don't infringe. And, in essence, I believe that's what Dr. Fontecchio's opinion does in large part.

And it is clear from the expert reports of the

Plaintiff that it is T3 that they believe is the 06:27:02 1 06:27:07 appropriate transistor. 2 06:27:09 You have tried to get them -- you've tried to get 3 Mr. Credelle, during this trial, to say it was T2. He said 06:27:12 4 T2 has some of the same characteristics, but he never did 06:27:15 5 06:27:21 adopt T2 as the accused functionality. And it's clear from his testimony and his report, 7 06:27:23 that was furnished in advance of the trial, that it is 06:27:27 8 06:27:29 Plaintiff's position that it's T3. It is certainly appropriate for you try and show 06:27:32 10 06:27:36 11 T3 doesn't meet the elements of the claim and, therefore, there's no infringement. 06:27:39 12 But it's not proper to take an unaccused element 06:27:40 13 and then argue that that doesn't meet the elements of the 06:27:44 14 15 claim and establish as non-infringement. 06:27:46 With regard to Dr. Fontecchio's art-based 06:27:51 16 invalidity grounds, I do not find that they contravene the 06:27:55 17 supplemental claim construction. 06:27:59 18

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The Court said that "cover" does not mean it has to be full coverage. It did not say what amount less than full coverage had to be present. It was silent on that.

To the extent Dr. Fontecchio has opinions in his report that rely on art-based invalidity references that contain some amount of coverage, even if it's complete coverage, they're appropriate, and I'm not going to

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         1 | constrain his testimony in that regard.
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                    That, I think, is the gist of the instructions I
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            gave you in chambers. It certainly includes a recitation
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            into the record as to why the Court reached his
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            conclusions.
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                    Your objections, Mr. Haslam, are certainly noted
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            and are preserved. You were worried that you were going to
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            waive them, and he never got close to the witness stand
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            today, so these objections are clearly before he ever takes
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            the stand, and they're certainly preserved and not waived.
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                    MR. HASLAM: Thank you, Your Honor.
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                    THE COURT: All right. Thank you. I think that
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            completes that bit of housekeeping.
                     I understand we will start tomorrow with some
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            short depositions, and then go to Dr. Fontecchio; is that
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            correct?
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                    MR. HASLAM: Yes.
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                    THE COURT: All right.
                    MR. HASLAM: Followed by Dr. Sierros -- Sierros,
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            and then our damage expert, and then we will rest.
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                    THE COURT: All right. Let me remind the parties
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            that I expect to hear from you as to the serious result of
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            your meet-and-confer efforts by 10:00 o'clock this evening.
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                     If I get the same email report at 2:00 a.m. or
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            1:00 a.m. or at some late date in the wee hours as I have
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1 the last two days, I will take similar action to what I
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         2 took today.
                    There is a lot to be done before this trial is
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        4 complete, and there's a lot of work left on both sides of
06:29:48
        5 | the docket. And I want to make it clear to everybody, we
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           are going to get this trial finished either this week or
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           Monday at the latest.
                    Are there issues that need to be addressed to the
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       9 Court from the Plaintiff at this juncture?
                    MR. FENSTER: No, Your Honor.
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                    THE COURT: Are there additional issues that need
06:30:08 12 to be addressed to the Court from the Defendants at this
           juncture?
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                    MR. HASLAM: No, Your Honor.
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                    THE COURT: We stand in recess until tomorrow
06:30:11 15
06:30:13 16 morning.
                    COURT SECURITY OFFICER: All rise.
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                    (Recess.)
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CERTIFICATION I HEREBY CERTIFY that the foregoing is a true and correct transcript from the stenographic notes of the proceedings in the above-entitled matter to the best of my ability. /S/ Shelly Holmes 3/3/2021 SHELLY HOLMES, CSR, TCRR Date FEDERAL OFFICIAL REPORTER 06:30:14